THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

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Foreign Correspondence.

Letter from Prof. Liebig's Laboratory.

Giessen, August 20, 1849.

EDITORS CULTIVATOR—A voice from this quiet little town of Giessen, would scarcely have made itself heard amid the roar of revolution that has been coming to you for the last eighteen months. Who wanted to hear about chemistry, when all Europe had converted itself into a laboratory of decompositions and recompositions on a so much grander scale? Meanwhile, things have moved on here very much as usual. The little town so well known to your readers through your old correspondent, Prof. HORSFORD, has, it is true, aroused itself sufficiently from its scientific repose, to amuse itself with a barricade or two in miniature; but, for the most part, it has been very quiet. An American can hardly comprehend how, amid such stirring events, there is so little general excitement. At home, who would be satisfied, high or low, without having read the last paper, without being in possession of the last item of news. Here there is no such evidence of intense interest in the mass of the people. The old passivity hangs still around them. No one is satisfied with things as they were, or as they are; all would like to see a radical change, but where are the men inclined to act? There are, it is true, a great many difficulties in the way of such a change. First of all, the fact that such a majority of the educated and influential among the people are directly in the pay of the several governments; that is, are office-holders. Almost every profession is made into an office here. Clergymen and professors, for instance, are directly supported by government. One word too freely spoken, and the supplies are stopped, to say the least. Again, the ignorance of that large class, the peasantry, is a great obstacle in the way of a radical change. Men must understand and feel their rights before they can assert them—they must feel their power also. Again, the strong sectional feeling. A revolution arises for instance in Baden. The army passes the Hessian frontier, expecting support. Somebody calls the advance an invasion, and down comes the Hessians upon the invaders. In the Prussians, this sectional feeling may be dignified by the name of national pride. Not that they are proud of their king, but of the power of the nation. Authority brings them into the army, fear holds them there, and makes them the instruments of the power they hate, and this petty gratification of pride of national power is their only reward.

Prussia is said to be at present concentrating a large force upon the Austrian frontier. The prospect of this demonstration is sufficiently obvious. It is a terror for the south and east, in case of a refusal to come into the northern alliance. It is a good omen for Hungary, but for Europe, who shall say what it forebodes? The south, involved as Austria is, in that most unjust of all wars with Hungary, cannot stand alone against the power of the north, but this does not make submission the more probable. May it not reckon with reason on foreign assistance? Would England, France or Russia regard with indifference the increase of the power of Prussia, that would result from such a war?

But enough of politics. LIEBIG's summer course of lectures is nearly at an end. To-day, we had that most interesting chapter of modern science—the mutual relations of animal and vegetable life, particularly with reference to the atmosphere. In the hands of Liebig, this theme already trite, becomes invested with all the interest of a new discovery. And how beautiful in truth this arrangement of nature, according to which, each plant in its every breath, is a minister to the wants of animal life, purifying the air upon which it depends for existence, and in turn, deriving its own life and beauty from this act of beneficence. The discussion of the origin of the nitrogen of plants was one of the main points in this lecture. Liebig's views on this subject are known to your readers, through his work on Agricultural Chemistry. The ammonia of the atmosphere is a principal source. The determination of its amount recently made by Freseneus, may be interesting in this connection. He found about 1-3,000,000 carbonate of ammonia in the air of the day, 1-2,000,000 in night air. How such small quantities are estimated must appear mysterious to those unacquainted with the method of effecting it. The means are, however, very simple. To give an idea of the matter, we will suppose a hogshead filled with water, supplied with a cock below and an opening in the head above. On turning the cock the water runs out, and a corresponding volume of air comes in above and takes its place. If the water that has escaped is measured, we know that for every quart of it, we have a quart of air in the hogshead. Thus it is perfectly easy at any moment, to know how much air has come in through the opening above. Now we will suppose the hogshead full again, and to this opening a tube fitted, loosely filled with a substance that has such an affinity for ammonia, that it absorbs and retains all that approaches it. The cock is turned again; we let, say a hundred gallons of water run out and stop it off. One hundred gallons of air has consequently come in through the tube above, and left all the ammonia behind. We have the ammonia fast. All we have to do now is to weigh it; suppose it is a half grain; then a hundred gallons of air contain a half grain of ammonia.

From a recent English paper, I see that the fabrication of carbonate of ammonia, naptha, soda, &c., from peat, is commenced on a large scale in Ireland. The amount of the products must be overstated, but I believe this manufacture might be pursued in America with advantage. Ammonia has for years, been obtained in large quantities, incidentally in the manufacture of burning gas from bituminous coal. It owes its origin to the nitrogenized constituents of the plants from

which the coal is formed; on distillation, the nitrogen and carbon share the constituents of water, forming carbonic acid and ammonia.

I have observed in the recent agricultural journals, certain new methods for the prevention of the rot in potatoes. With Klotzch's method of clipping the sprouts, when the plant is seven or eight inches high, and then again, four or five weeks later, you are probably acquainted. It does not seem to have realised the expectations excited by his statement. A farmer in this vicinity tells me that he has tried the method without success. It seemed to increase the vigor of the plants, but did not prevent the rot. Klotzch warns against cutting the sprouts more than half an inch.

A correspondent of the Agricultural Journal for Rhenish Prussia, recommends piercing the potatoes to be used for seed with a wooden instrument (the holes to be two or three in number and to reach the centre,) and then soaking them in water containing from two to three per cent. of sulphuric acid (oil of vitriol.) He supposes the infectious matter thus destroyed. He advises also plucking the blossoms to prevent infection from other fields, and planting deeper, inasmuch as it has been observed that the potatoes nearest the surface are generally most diseased. He professes thus to have raised potatoes, almost without exception, sound, while alternate hills, not thus treated, were very much diseased. Another correspondent of the same Journal uses gypsum, throwing it over the plants when moist with dew, and has equally conclusive evidence of the value of this means against the rot. He supposes the gypsum to act where applied, that is, upon the leaves and stalk. How it can act here, it is hard to say, for the usual conditions of its action are not present.

John Flock, of Montabour, Nassau, has recently published the following method as a specific against the rot. He leaves rather larger intervals than usual between the hills. When the plant has reached a convenient size, he hoes up the earth against it on one side, to one half its height, then bends the plant over horizontally, and forms the hill so that an inch or two of the plant projects from the middle of the slope. The plant on further growth, makes an angle at this point. The object of the contrivance is to lead off the rain, which otherwise follows the stalk to the roots, and carries with it the matter which causes the disease in the tubers. This view of the progress of the disease, acquires probability from the fact that after a rain potatoes before sound often become diseased and rot rapidly—again, from the fact that the disease commences on the outside of the tuber, and is worse nearest the surface of the ground; further, from two observations of Mr. Flock, that suggested his method, namely, that there was always most disease in the hills whose plants grew straightest, and consequently, through the influence of the wind, formed a funnel-shaped opening about the roots, which gave the rain easy access; again, that where the manure was applied in such a form and manner as to protect the roots in a degree from the rain, there was always least disease.

One of the recent chemical journals contains the records of a very interesting series of experiments on the necessary inorganic constituents of the oat plant. Single grains were sown in pure charcoal, prepared from sugar, this being contained in little tin vessels lined with wax. Without addition of any thing to the charcoal, a plant was obtained, but it was very small and sickly. Ammonia salts alone produced a plant of a lively green color, but still small and weak; increase of these in a second and third experiment killed the plant. The mixture, whose composition is given below, *exclusive* of ammonia salts, gave a plant of double the size. On supplying in another experiment, all the salts of the mixture, the weight of the plant was quadruple the last, but still weak for want of iron, as another experiment proved. The mixture,* with addition of oxide of iron being furnished, a much finer plant was obtained, but withered spots appeared upon its leaves. In another case, where the salts of the last experiment were not supplied, with addition of a little carbonate of magnesia, no such appearance was observed, and the plant was beside in all respects materially improved. It was ascertained further that soda could not be substituted for potash, nor magnesia for lime, without injury to the plant. Many other experiments with omission of individual constituents were made, from which it was inferred which are essential and which not. The conclusion from the whole investigation was that silicic, phosphoric and sulphuric acids, potash, lime, magnesia, iron, and manganese are essential constituents of the oat plant. The investigation was commenced so late in the season, that the development of the grain could not fairly be considered. The above conclusions have no reference to this point. More phosphates in proportion would certainly be required.

I give you below, the results of my own analysis of the ash of oats. The dry grains yielded 4.71 per cent. of ash. This ash contained, expressed in per cent., silicic acid, 53.97; sulphuric acid, 0.49; phosphoric acid, 17.35; lime, 3.00; magnesia, 7.08; potash, 12.94; soda, 2.02; oxide of iron, 0.60.

Prof. Liebig is at present engaged in re-writing his Animal Chemistry. Many of the chemists in his laboratory have been consequently engaged with investigations in this department. We are often rewarded with most interesting results; for instance, as the result of an investigation shared by three among us, we find that the composition of the inorganic part of the blood, of urine, and of the aqueous extract from meat, are most strikingly similar. The result was to be expected on theoretical grounds, but it was interesting to prove it. Such facts are not alone interesting—they are of important application. Another investigation, not however, very recent, proves that the whole character of the blood can be changed at will, and that in a very short period, by change of diet. I do not refer to a mere variation of the proportions of its constituents, but to *such* a variation as implies a material change of character, as for instance, the replacement of its alkaline phosphates by carbonates. That the influence of such a change in the constitution of a fluid that bathes all the nerves and tissues of the animal frame must be a very material one, is evident. Its efficiency in the treatment of disease, has been by no means fully tested.

You shall hear from me again soon.

Very truly yours, JOHN A. PORTER.

HOUSEHOLD COMFORTS.—The female editor of the Pittsburgh Visitor, in recommending comfortable and *cheap* furniture for farmers' houses, in the form of settees or lounges, makes the following remarks: "I can tell no reason why rich folks, who do not work, should have *all* the comforts of life, while any one who pleases might have a good share of them by only thinking of it! I have many a time gone into the houses of rich farmers, when I thought their best room was not half as comfortable looking as their *barn*. Here one could find a nice place to loll and rest on the hay and straw; but there, there was nothing but bare benches and chairs to sit on, bolt upright."

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* Composition of the mixture:

0.14	grammes	Silicate of Potash.
0.50	"	Carbonate of Lime.
0.04	"	Phosphate "
0.10	"	Sulphate "
0.04	"	Carbonate of Magnesia.
0.10	"	Nitrate of Ammonia.

A gramme is about 15½ grains.

The Relations of Science to Agriculture.

We copy the following from the last No. of the Journal of the Transactions of the Highland and Agricultural Society of Scotland. It was written by Dr. ANDERSON, chemist to the Society, and its practical and common sense view of the subject, will commend it to the attention of our readers:

The application of science to agriculture is a subject on which so much has been said and written, during the last few years, and which has occupied so much of the attention of the agricultural public, that it may seem almost superfluous to add to what has already been penned. It has always appeared to me, however, that there are still many points of great importance for the practical man to consider, which have either never been sufficiently prominently presented to his view, or which, from their being less striking, or perhaps less enticing, have been allowed to fall into the background, and have hence led to a certain amount of misapprehension in regard to the exact position of science and its relations to practice. Such misapprehensions it would be desirable under any circumstances, to dispel; but now that the Highland and Agricultural Society has actively taken up the prosecution of agricultural chemistry, it is of primary importance that the farmer and the chemist should come to a distinct understanding with regard to the mutual bearings of scientific and practical agriculture—the manner in which they can be made to assist one another—and, what is of all others the most important point, how can they be made to co-operate, so as to establish on a firm basis the general principles of agricultural science, which must necessarily be the first step towards the development of scientific practice. Under these circumstances, I have thought that I might advantageously refer very shortly to some of these matters, and point out what we are in future to expect from the application of chemistry to agriculture, the more especially as it is not very difficult to perceive that the interest which attached to it has somewhat abated with the general public, though I believe it to be undiminished with our most active and intelligent practical men.

This very diminution in the interest attaching to chemical agriculture, I believe to be mainly founded on one of the most serious misapprehensions—serious alike to agriculture and to chemistry—with which we have now to contend; and that is, the erroneous and altogether extravagant expectations which some persons entertained, regarding the extent and rapidity of the influence which chemistry is likely to exert upon agriculture. To hear them talk of it, one might almost imagine that chemistry, as by the wand of a magician, is at once to spread fertility over our barren moors, and raise abundant crops where nothing ever grew before; and that the chemist can by a few simple experiments, determine with absolute precision the circumstances under which the farmer must go to work, so as to produce an abundant crop. It needs not to be mentioned that such views are the exception, not the rule; but, between this extreme case and those likely to be fulfilled, there are many expectations which, with less apparent extravagance, are equally beyond the powers of chemistry in its present imperfect state, and involve questions which, if they ever can be answered, must await the advance of pure science to a point much beyond that to which it has yet attained. Nor is it, perhaps, matter of much surprise that such expectations should have been entertained, as it must be admitted that the general public is not in a position to estimate correctly the extent of the benefits which it is likely to derive from the application of science to any art; and, unfortunately, in the present instance, it has been misled by the far too laudatory terms in which the application of chemistry to agriculture, was talked of some years ago. Hopes were then excited which, to those intimately acquainted with chemistry, it was very evident could not be sustained, but which the enthusiastic embraced at once; only, however, when they were disappointed, to abandon as worthless, the whole science itself, along with the unobtrusive modicum of real progress, which was altogether lost sight of amidst the ruins of their lofty expectations. Even those who take a more cautious and sober view of the progress of agricultural chemistry are apt to be led into expectations greater than facts justify, by the extraordinary progress which the application of chemistry has effected in some other arts, such, for instance, as the art of bleaching and the manufacture of soda, which chemistry, by one great stride, raised from the state of primitive rudeness in which they had existed almost from time immemorial, to one at least of comparative perfection. Such facts may lead us at first sight to expect that the application of chemistry to agriculture should be followed by equally rapid results; but a little further consideration seems to point out a very material difference between such arts and the cultivation of the soil. In such a case as the manufacture of soda, for instance, and indeed in all those in which the application of science has produced the most marked results, the chemist has presented to him for solution a definite and circumscribed problem, involving the mutual relations of some three or four different substances; and he is able to trace the changes which the coal, common salt, and lime employed, undergo, from the commencement of the process through each successive step, until the soda is obtained in the perfect state; but in the art of agriculture each question frequently involves, not one, but many problems, connected with the highest and most abstruse doctrines of the science, in which not merely chemical forces, but the far more recondite phenomena of life come into play, and in which the investigations of the chemist are carried on, and his conclusions tested under the influence of weather, climate, and many other perturbing causes.

The extreme complexity of the problems with which agricultural chemistry has to deal, may be conceived from the fact that most plants contain from twelve to fifteen different substances, all essential to their existence, the relations of which must be investigated before definite views can be obtained regarding the changes which go on in the organism of the plant. These relations, moreover, are far more complicated than even the number of the elements alone would lead us to suppose: the single element of sulphur, for instance, which does not constitute more than two or three parts in the thousand of most plants, exists there in not less than three different forms of combination, in each of which it is as essential to the plant as those which form the great proportion of its bulk. Now, it must be sufficiently manifest, that questions involving elements of such complexity are not to be solved as rapidly or easily as the far simpler problems of mineral chemistry, and that not merely on account of their superior complexity alone, but because, in the one case, theoretical chemistry sets us far on our way towards the solution, while in the other there is still a great gap to be filled up, a whole mine of scientific facts to be worked out, before we are in the condition to approach sufficiently near the comprehension of these more complicated phenomena. In fact, the latter are not questions of *pure* chemistry, but are intimately interwoven with vegetable physiology—so much so, indeed, that in many instances it is scarcely possible to decide to which of these two sciences they ought strictly to belong. And it is just herein that their great difficulty consists, for there is nothing more certain, than that those questions which lie, so to speak, on the confines of two sciences, require for their

successful investigation a high degree of development of both the sciences on which they depend. Now, chemistry is still far from having attained all that development of which it is capable, as the time during which it has been cultivated has not been sufficiently long to admit of much progress, except in special departments. Few of those who are not themselves chemists, are aware that the facts and doctrines of modern chemistry have been determined during little more than the last sixty years; and that, with few exceptions, all the laborious investigations of the older chemists, and, without exception, all their general doctrines, were then swept away, to be replaced by the science as it now exists; while organic chemistry, with which agriculture is more intimately connected, has been successfully prosecuted for not more than half that period.

To expect any *rapid* advances, in the practical applications of agriculture, of chemistry in its present state, is manifestly unreasonable. The progress must necessarily be slow, in some instances almost imperceptible; and much must be done which at first sight the practical agriculturist may be inclined to consider altogether foreign to his object. Extended researches will frequently be requisite which do not directly lead to practical results—that is to say, which are not immediately convertible into an equivalent of current coin, but which are the foundation of such results, and form the starting point of perhaps a very different series of experiments, having an immediate bearing upon practice. It is of great importance that this should be distinctly understood and borne in mind, for it is by no means uncommon to suppose that nothing more is necessary than at once to convert scientific facts to practical purposes; while, so far from this being the case, the agricultural chemist has a two-fold duty to perform—he must both determine the scientific facts of agriculture, and eliminate from them the practical conclusions to which they lead. It may, perhaps, be said that the establishment of these facts falls within the province of the pure chemist. But if this principle were to be acted upon, the progress of chemical agriculture would be slow indeed; for the investigations of the pure chemist lead him now, and are likely for a very long period to lead him, in directions very remote from those most likely to afford the materials which the agricultural chemist requires to work upon. The latter would, therefore, require to sit idly waiting till the former supplied him with facts, which his own exertions would have enabled him to ascertain. Nay, the agricultural chemist may even do a better service to agriculture, by pursuing the investigation of those apparently theoretical subjects, than by directing himself to those which seem to have the most immediate practical bearings.

There is another point on which there has been a good deal of misunderstanding between the chemist and the agriculturist, which is intimately connected with the erroneous estimate of the extent and perfection of chemistry. It is not uncommonly supposed that the chemist is in the condition at once to solve, by the investigations of the laboratory, all such questions in practical agriculture as may happen to be submitted to him—that he can determine when nothing else can, why certain methods of cultivation are successful, others unsuccessful. It is just possible that he may in some instances be able to do this, but far more frequently his researches enable him not to state positively what is or what is not the case, but rather to draw a probable conclusion—to form, in fact, a hypothesis, which is not in itself a truth, but which must be further tested by experiment in the field, whereby it may be either confirmed or entirely refuted. Now, very unfortunately, this hypothesis is often taken for a positive statement; and when it turns out to be erroneous, it is immediately held up as an instance of the fallacy of science by those who, not being themselves acquainted with the method of investigation by experiment, are unaware that all scientific facts are developed in such a manner. No one ever thinks of going fortuitously to work, when he proposes to determine a scientific fact. He first weighs all facts of a similar character, or having a bearing on the subject which he desires to elucidate, and then founds upon these a hyyothesis, the truth or fallacy of which is to be tested by experiment. Now, without any explanation, it has frequently happened that such hypotheses have been handed over to the practical man, whose field experiments having refuted them, he has forthwith abandoned the science which seemed to him to give erroneous results, not knowing that these results were only in progress of being arrived at by those very experiments which he was engaged in performing. The very same process has been employed in the application of science to every other art; but the difference between them and agriculture is, that, with the former, the hypothesis is formed and the experiments executed by the same person; in agriculture, the hypothesis must in many instances be handed over for experimental elucidation to the practical man. The many failures which are made in other arts remain unknown to all but those by whom they have been made, while in agriculture they become known to all and sundry; and by them it is not understood that, though these results are negative, they still serve to bring us all nearer to the truth.

And this leads me to observe, that the true manner in which chemical agriculture is to be advanced, is not merely by the exertions of the chemist, or the labors of the laboratory alone. It must be by the simultaneous efforts of science and of practice, each endeavoring to develop, with care, steadiness and accuracy, the facts which fall within its province. Nor must each pursue its own course irrespective of the other. They must go hand in hand, and, taking advantage of each other's experience, and avoiding all sort of antagonism, they must endeavor to co-operate for the elucidation of truth. The chemist and the practical man are, in fact, in the position to give each other most important assistance. The one may point out the conclusions to which his science, so far as it has gone, enables him to come; while the other may test these conclusions by experiment, or may be able, from his experience, at once to refute or confirm them. But it will not do to imagine that there is here, either a triumph or a defeat. Such a spirit cannot be anything but injurious. It is rather to be looked upon as a fortunate state of matters, which, admitting of the examination of our own conclusions from two different points of view, directs us with the greater certainty in the path of truth.

For the development of agricultural chemistry in this manner, the Highland and Agricultural Society appears to me to possess peculiar advantages. It has within its own body a large number of members, who are both able and willing to assist in furthering its views in this direction by experiments in the field; and I am glad to say that some are actually already commenced, the results of which I hope, at no very distant period, to communicate to the Society.

As it may be interesting to the members of the Society to learn the nature of these investigations, I shall state very shortly, the method in which we propose to pursue the work of the laboratory. Our plan is, as far as possible, independently of the ordinary analyses of manures and the like, to carry on two different classes of researches. 1st, Extended investigations on subjects of interest and importance, and the completion of which must necessarily occupy a considerable period; 2d, shorter investigations of subjects of a more circumscribed character, which do not occupy so long a period, and 3d, subjects which, from their consisting of isolated

portions, may be taken up in the intervals which occur in the investigations of other matters.

In the former of those classes of investigations we are now engaged with a series of experiments for the purpose of determining, as far as chemistry can, the relative feeding values of different grains, and other ordinary sorts of cattle food—our object being so to determine their values that the farmer may know what quantity of any given sort of food he ought to substitute for that he has ordinarily employed, when the price of the former falls so low as to make it advantageous to use it. In this way the farmer will be enabled to employ the produce of his own farm, in place of disposing of it at low rates, and purchasing foreign cake or other foods. The subject is one of considerable difficulty, but when completed it will, I hope, serve to throw some light upon the principles of successful feeding; and it is our intention to extend it to our root crops, and to the different sorts of grass employed for hay, as opportunity may offer. Another question, now under investigation, is the alleged inferiority of the butter of cows fed with turneps grown with guano, to that of those fed with turneps grown with ordinary manure. I do not expect, however, that we shall be able to complete this till the close of the present season, as it was begun at too late a period to admit of our obtaining the turneps of the last crop in their best condition. Turneps, however, are now being grown both with and without guano, by means of which we shall be able to investigate this matter more fully than we have yet been able to do. In connection with the turnep crop, we have also made arrangements for determining the cause of the different feeding value of turneps grown in high and low districts, and the chemical department of which will be entered upon as soon as the turneps now being grown expressly for this purpose, are ready.

The subjects belonging to the second and third classes are of too special a character to render it necessary for me here to go into any details regarding them. I shall only mention that one is a careful series of analyses of standard soils from different parts of Scotland—a thing which is much wanted; for, notwithstanding all that has been done in agricultural chemistry, we are still very far from having a correct knowledge of the constitution of the soils best adapted to different crops.

It will be seen, from what I have now mentioned, that we are occupied with a large amount of work, the satisfactory completion of which will require a considerable time, but from which, I trust, we shall obtain results alike creditable to the Society and advantageous to agriculture. Of this I entertain little doubt; but I may be permitted to observe, that my chief fear for agricultural chemistry is, that the constant craving after immediate results on the part of the agricultural public, may lead to the publication of hurriedly and imperfectly performed investigations. The chemist knows well how desirable it is to weigh and repeatedly to examine all his results, and to proceed cautiously and slowly; while the agriculturist, though in his own operations he is content to cast his seed upon the ground, and wait patiently for the harvest, is too apt to imagine that the tree of science bears fruit at all seasons, though, in point of fact, the patient waiting for results is a most necessary element of scientific progress. If this error is avoided, I am convinced that good results will be obtained, and that all men will in time be convinced that the slow and careful determination of scientific facts, is likely to become one of the most important assistants in the improvement of practical agriculture.

Take care of all vegetables and fruits before the frost becomes severe.

Practical Farming.

Premium Farm of E. C. Bliss, Westfield.

In our September number, we gave the statement of Mr. Foster, who received the first premium on farms, from the N. Y. State Agricultural Society. We herewith present from the *Transactions*, the statement of Mr. E. C. Bliss, of Westfield, Chautauque county, who received the second premium for the best cultivated farm.

Soils, &c.—My farm is situated 2½ miles south of Lake Erie, and 60 west of Buffalo. It contains 110 acres of arable land, and 40 of wood land, in all 150 acres. The soil varies. Some sandy loam, some gravelly loam, and some clay; with clay subsoil, no limestone, nor rocks, but sufficient sizeable stones for all needful purposes on the farm.

Rotation.—I manure well and pursue generally a three years' rotation of crops. For clay soil; first a good coat of coarse manure on the turf, then plow and harrow, fitting it for corn or other hoed crop. After removing this crop, the same fall, the ground is again plowed and harrowed, and fitted for getting in an early spring crop. In the spring sow to some small grain. After this crop is removed, manure again, plow and fit for the third spring crop, which is usually barley, as that is preferable for seeding with. Then seed with clover or timothy. Gravel and sandy soils are treated some different, as they are suitable for winter wheat. After manuring and plowing well, in preference to summer fallow, I sow to peas, or peas and oats; in the fall sow to winter wheat. By this management I have raised 21 bushels peas per acre. The following crop of wheat averaged 28½ bushels per acre. Upon removing this crop, I next plow the ground, and apply fine manure, then drag well and sow to winter wheat, and in the spring sow to clover.

Plowing.—The usual depth is from 6 to 8 inches. In all cases as deep as the plow will run and turn the turf well. The effect of this deep plowing is good, although on clay soil the first crop will not be better than that of shallow plowing, still the succeeding crops will be far better.

I have in one instance tested deep and shallow plowing. I divided a field into two parts, and plowed one part four and the other ten inches deep, and planted both to corn. The first crop proved the shallow plowing the best, but the following year I pursued the same course with the same pieces, and found the deep plowing produced a crop nearly double the shallow; a convincing proof to my mind that deep plowing is much preferable.

Manures.—About 40 loads per acre. I throw the manure from stable windows under temporary sheds, in order to protect it from rains, having one cellar 18 by 25 for manure, over which are stabled 6 horses through the winter. My means for making manure are through my horses, cattle, sheep and hogs, to which I feed hay, carrots, potatoes, corn fodder, &c., during the winter. The sheep are principally fed under large sheds, from racks made for the purpose. Each of my yards has a basin dug to retain all the fine particles of manure, urine and wash of the yard, besides having a large basin in my barn yard for the same purpose. Part of my straw I stack in the yards, and the remainder reserve for bedding for the different animals during the winter, and keeping the yards well littered, &c., all to increase the manure. My horses and cattle are all fed from stables during the winter. My hog pen and yards are another great help in making and collecting manure. Their manure is thrown from the pens into a yard, together with all refuse from the kitchen, occasionally a few loads of leaves, coal dust, horn shavings, refuse hair

and lime, &c., from the tannery. The store hogs have access to this yard, and by this means it is all worked into good manure. This yard is under cover. I usually manufacture about 400 loads annually, and apply it all, and for the last 5 years I have purchased about 200 loads annually, from the village (1 mile distant,) and appropriated it all to use, paying one shilling per load. The most part in its long or green state, applied to fields designed for hoed crops. What is obtained from the village and barn yards during the summer, is hauled into the fields and piled, to be applied to small grain as wanted after sufficiently rotted; piles covered with earth or leached ashes.

I have used lime on wheat several times, and with good results; by spreading it from the wagon with a shovel after it was air slaked, at the rate of 30 bushels per acre. Have applied plaster in the usual way to clover, and derived a decided benefit; also applied it to corn hills after the first hoeing, about half a gill per hill. Some seasons it has been beneficial, but others I have reaped little or no gain. In one case, used salt as an experiment. After fitting one acre well for flax, to one quarter of it I applied half a barrel of salt, to another quarter 6 bushels slaked lime, but to the remainder nothing, and sowed the whole to flax. There was no perceivable difference between the part containing the salt, and that of the lime, so I harvested them together, and the other half by itself. The final result was that I obtained 2¼ bushels seed, and 52 pounds lint more from the part having the salt and lime, than from the other. I have also used about 150 bushels of horn shavings, (obtained from a comb factory) on corn, by applying a single handful to each hill, previous to putting in the seed. According to the best estimate, the crop was increased from 15 to 20 bushels per acre. But as none of the field was exempt from the shavings, we could not tell the precise amount. Comparing it with previous crops on the farm, it exceeded any by 20 bushels. I have also used muriate of ammonia for soaking seed corn, but perceived no benefit.

Tillage Crops.—I have tilled about 35 acres this season. 10 acres winter wheat, 8¾ acres corn, 3¼ acres spring wheat, 4 acres oats, 2 acres barley, 1 acre flax, 1 acre beans, 1¼ acres broom corn, 1 acre potatoes, 2 acres peas, ½ acre turneps, ⅛ acre carrots. The ground on which the oats, potatoes, and part of the corn was raised, (amounting to 8 acres) has this fall been sown to winter wheat.

I usually sow 1½ bushels winter wheat per acre, from 10th to 20th September; if later, 2 bushels seed, always soaked in strong brine, and dried by rolling in plaster or slaked lime. Barley, brined and limed, sown April 18th, 3 bushels per acre. Spring wheat sown at the same time, 2 bushels per acre, brined and limed as the above; 3 busheis oats per acre, sown April 4th; flax sown 17th April, 1 bushel per acre. The ground for these spring crops is usually plowed and dragged in the fall, so as to be ready for early sowing in the spring, and in the spring I harrow the ground again previous to sowing, and after sowing harrow again, and pass over with light roller. My crops are all harvested in the usual way, by cradling or reaping, and threshed by machine. Corn planted from 10th to 20th May, about 8 quarts per acre, 3 feet one way, and 1½ to 2 feet the other, and thin out to three stalks in a hill. The corn is usually cultivated by passing through with cultivator or drag, and hoed twice, but avoid hilling as much as possible. It is all cut up in September, husked and housed as soon as practicable, usually from 60 to 80 bushels per acre; have not yet ascertained the amount of the present crop. From the 4 acres oats, I have 241¼ bushels; 46½ bushels barley per acre. Beans 32 bushels per acre. Winter wheat not yet all threshed, but judging from what has been threshed, it will go over 25 bushels per acre. Potatoes about 300 bushels per acre, with 22 bushels seed planted. Of peas, I usually sow 4 bu. per acre; product about 20. One small lot of wheat on new land, went over 40 bu. per acre.

I prefer long manure for all hoed crops, spread on the surface and plowed under in the spring. For wheat and other small grains, I prefer using it in a slightly decomposed state. This manure is spread on the ground after plowing, and then mixed with the soil by harrowing. Usually 40 loads per acre for hoed crops, and vary the amount for small grains, according to the condition of the soil.

For all hoed crops, the manure is covered as deep as the team can turn it under with the plow, on any of my soils, while for small grains it is spread upon the surface and mixed 3 or 4 inches deep.

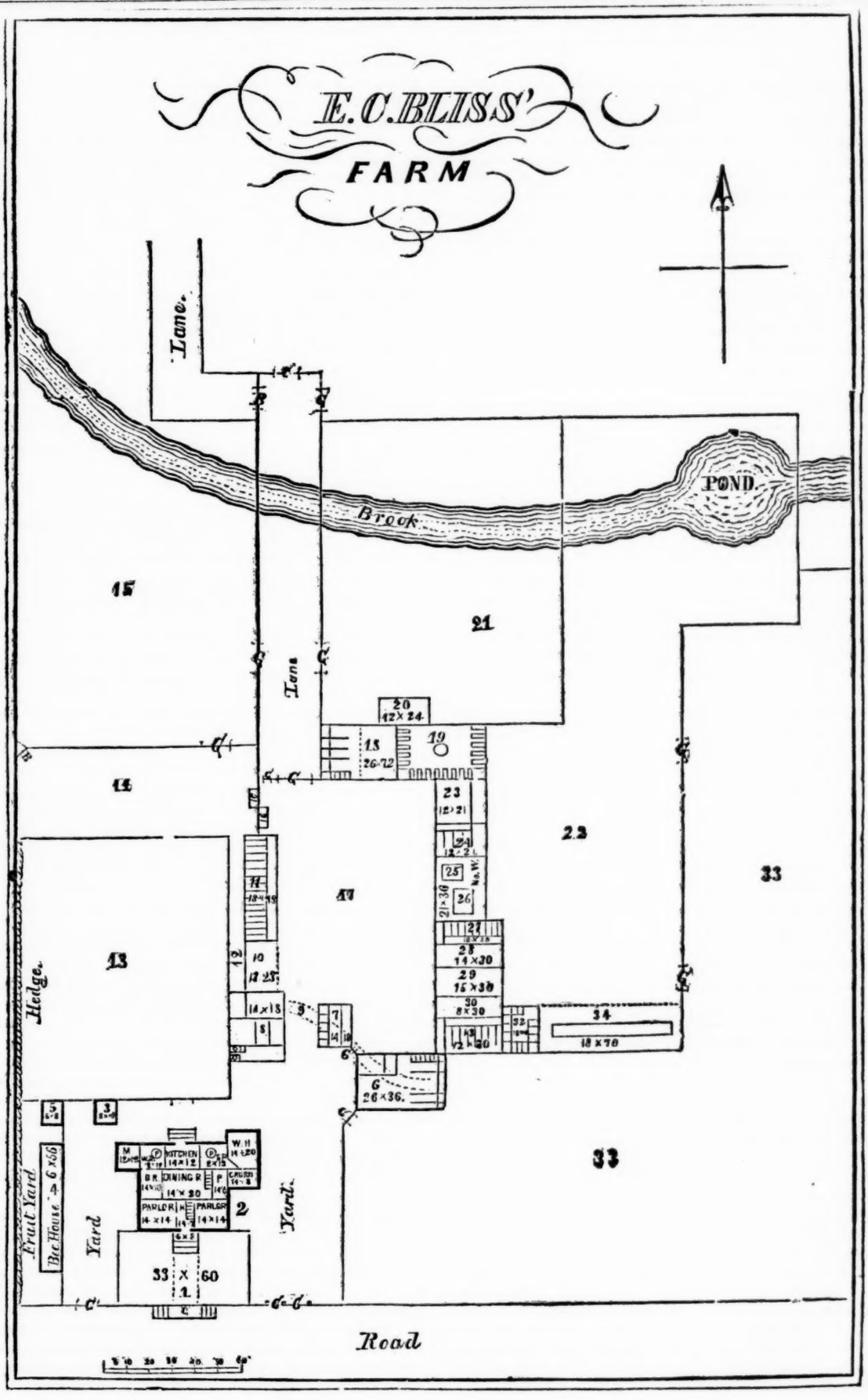
My potatoes have been slightly affected for several years. I know of no remedy. The early planted ones usually do the best.

Grass Lands, &c.—Principally timothy and clover. From 14 to 16 quarts timothy seed are sown in the fall with wheat, or in the spring with barley or spring wheat. About 8 quarts of clover seed is sown on light snow in March, upon winter wheat, or in April or May with spring wheat or barley.

I usually cut from 35 to 40 acres of hay annually; this year averaged 1¾ tons per acre; some seasons not as much, and others more than this. My timothy is cut before fully ripe, or previous to the blossoms dropping. It is mowed down and laid in swath during the day; the following morning it is shook out, and in the afternoon raked up into winrows, and is either left in the winrow, or cocked up until the next day, when it is again opened if not sufficiently dry, and in the afternoon it is housed. The clover is usually cut before the timothy, and as soon as the heads are in bloom. This hay is mown and shook out the same day; the next day it is raked and cocked, and allowed to remain in the cocks two or three days. They are then opened in the forenoon, and in the afternoon put in the barn.

Draining.—A small piece of land has been reclaimed, which was formerly so wet and boggy as to be useless. The following manner was pursued: First enclosed it with a ditch, then from different parts of this, dug several, partly across the piece. This so dried the ground as to enable me to draw on stone, and stone up all the ditches. They were stoned in the usual way, by placing two rows of stone from 4 to 6 inches apart, and then covering with large flat stones, after which it was covered with earth. This so drained the land, that the next season I removed all shrubs and bushes, plowed and planted it to potatoes and corn; raised a middling crop considering the ground. The succeeding crops were oats, flax, barley, and seeded with timothy, half bushel seed per acre. These crops were all very good, (some took county premiums.) This season, about the middle of July, this piece was mowed, and after well hayed, was raked up; for the purpose of forming an estimate, per acre, one load was taken to the village and weighed; the result was 3½ tons per acre, as near as could be calculated. This field was again mowed in October, well hayed, and a load taken as before and weighed, from which an estimate was made; the result 2¼ tons per acre for the second crop, making 5¾ tons in one year. I have also practiced underdraining on my farm, which has served two purposes: First, benefiting the land, making all wet spots dry and suitable for plowing. Second, a portion of these drains are centered in a large reservoir, from which the water is conveyed in cement pipe about 60 rods to my farm buildings, and thence distributed by leaden pipes wherever desired, always having an abundant supply of water. The amount of underdrain is rising 600 rods.

Domestic Animals.—One pair working oxen, 4



85—PLAN OF E. C. BLISS' FARM.

cows, 12 young cattle, Hereford bull, 1 span work horses, 1 of breed mares, and 4 young horses. These breeds of cattle are not pure blood, but crosses of Devonshire, Durham and native.

My cattle are all wintered in good warm stables, and furnished with corn fodder, chaff and roots as long as they last, then have hay, cob and corn meal the remainder of the winter. In pleasant weather they are allowed to run in the yards through the day, where they have access to straw stacks and water. In this manner my cattle are kept in a thriving condition through the winter.

About 300 lbs. butter and 200 cheese are usually made per annum from four cows, and after the usual manner.

The number of sheep is 200. They are from one-fourth to full blood merino, averaging about 3 lbs. per fleece. About 200 lbs. of this is manufactured at home; the residue this year sold for only 25 cents per lb. in our place. About 100 ewes produce lambs; from 90 to 100 lambs reared. Sheep are very low here now; the butchers will pay only from $1 to $1.50, and for lambs from 62½ cts. to $1.

My sheep are wintered in yards, provided with water, and good sheds, with racks and troughs under them, where I feed with hay, straw, bean and pea vines. Usually commence feeding my breeding ewes with oats, oil meal, or broom corn seed, about the first of February. Usual loss, 3 per cent. per annum.

My swine consist of 1 Leicester boar, two Leicester sows, six barrows now fattening, and nine pigs, all the above-mentioned breed. These swine are furnished with the refuse of the farm and kitchen during the summer, and have access to the pasture and falling fruits of the orchard. Those intended for fattening, are put up in October and fed with steamed potatoes and apples for about 6 weeks, then fed with cooked corn or barley for about four weeks, on which they fatten rapidly. My spring pigs are butchered at 8 months old, weighing about 250; last year, by extra pains, they went over three hundred, when dressed; some at eighteen months, weighing from three to four hundred.

I have made no experiments with root crops, as to their relative value when compared with corn; but usually feed two or three hundred bushels potatoes and carrots to my milch cows, working horses and oxen, and find them nearly equal to oats.

Fences, Buildings, &c.—For explanation please refer to the diagrams annexed.

No. 1 is front yard, elevated above the level of the road by means of stone wall, backed up by earth, and crowned with a good picket fence; × portico and stone steps. No. 2, dwelling house, one and a-half stories high, consisting of drawing-room, parlor, hall, dining-room, bed-room, kitchen, well-room, cheese-room, pantry, sink-room, wood-house, &c., on the first floor, and upper story consisting of parlor chamber, lodging rooms, clothes presses, &c. Also a cellar, 30 by 38, consisting of bake room, fruit cellar, vegetable cellar, store room and larder. No. 3, smoke and ash house with stone bottom. No. 4, bee house. No. 5, water closet. No. 6, carriage house and horse barn. No. 7, corn barn. No. 8, hog and pig house, consisting of passage way, arch, water reservoir, brought by means of lead pipes, and 4 apartments, with stone floor as a basement, and a principal story above consisting of work shop and tool room, 12 by 30 feet; also steam room, 12 by 18; also, garret above for lumber, &c. No. 9, tunnel under ground, communicating from hog house to orchard. No. 10, open shed and manure basin. No. 11, stable for young cattle. No. 12, passage from hog house to young orchard. No. 13, garden, (vegetable) well enclosed with a good pale fence. No. 14, calf yard. No. 15, peach and pear orchard. Nos. 16 and 16, reservoirs of water, brought from main cement pipes, through small leaden ones. This cement pipe is made of water lime and sand, and laid 2½ feet under ground, conducting a stream of water 1½ inches in diameter, some 60 rods from a main reservoir created by under draining, which affords an abundance of living water at all seasons of the year, for all house and barn purposes. No. 17, barn yard in which is a large basin some 2 feet deep, which receives a principal part of the wash of the yard, and retains all the fine particles of manure. No. 18, horse barn, with hay loft and manure cellar, 18 by 25. No. 19, store room and apple grinder, with hay loft, and sheep-fold basement. No. 20, cider press with loft for storage. No. 21, sheep yard. No. 22, sheep and poultry yard, enclosed with tight board fence, with pickets and wires, &c. No. 23, open shed with feeding trough. No. 24, stable for oxen. No. W, machine house, containing horse power, which drives threshing machine, wood saw, straw cutter, &c. No. 25, circular saw, for sawing wood, &c. No. 26, horse power, (railroad patent) hay loft over all. No. 27, stable for cattle, with loft above for hay or grain. Nos. 28, 29, 30 and 31, threshing floor, bay for grain or hay, passage way, and stable for cattle, with a good loft over all for hay, grain or fodder. No. 32, poultry house. No. 33, orchard. No. 34, sheep shed.

Fences.—My fence is mostly made of good substantial chestnut rails, after the usual form of worm fence, with the corners well locked. I have 138 rods of board fence on cedar posts, 4½ feet high; also 25 rods pale fence. The board and pale fence cost 75 cents per rod. There is 1,746 rods of the rail fence, and 31,428 rails, which were all split from timber growing upon the farm. Cost $5 per thousand for cutting and splitting; the same for drawing and laying up, which will be 18 cents per rod. The total length of these fences is 5 miles and 309 rods. So much fencing on the farm is in consequence of a road running on two sides of it, and another across the south end. I also have a lane 3 rods wide extending from my barns through the centre of the farm to the road south, where I have a tunnel under the road, that my stock can pass to and from the pasture on the opposite side. The fields are principally arranged to enter from this lane. The condition of my fences is good, and all of durable timber—made 7 rails high, equaling 5½ feet.

Farm Accounts.—All my crops are accurately weighed or measured, excepting the hay and corn fodder. Correct accounts are kept of the loads of hay and bundles of corn fodder, and occasionally a load of each are weighed, that I may ascertain nearly the amount of each raised. It is all set down in my farm book, and enables me to ascertain the amount of stock that can be wintered, besides other benefits accruing from this accuracy. I keep tackle and large steelyard for the purpose of weighing hay or other feed for different animals, for my own convenience and satisfaction, to ascertain the expense of keeping, &c. My accounts are all daily registered with such minuteness as enables me to know the expense or income of all my transactions. Debt and credit is kept with each field, with the same precision as with individuals.

I keep accurate and regular farm accounts, and the annual expense of improving, and the income from it, is kept with such exactness and precision as enables me to strike an accurate balance of the debt and credit at the close of each year. A memorandum is kept through the day, of the kind, cost and amount of labor in each field, and at night all is minutely registered in my farm book. I have a diagram of the farm, on which all the fields are numbered, and regular debt and credit is kept with each field. Also an inventory is taken of all my stock, tools, debts, dues, &c., at the close of each year,

which enables me to know my exact valuation; also to know my progress from year to year. The practice of keeping our farm accounts accurately would most certainly conduce to close observation, make us more careful in all our farming operations, and in the end make us more thorough, systematic and profitable farmers. The expense of labor on my farm the present year, up to the first of December, amounts to $517.21, but about $300 of this has been expended in cutting wood and burning coal, from such of my timber as was not valuable for other uses. I found ready market for it in our village, and always returned with a load of manure, when it was to be obtained. This coal and wood to the present time amounts to $954, a sum sufficient to pay all the expenses of the farm, (including the cutting of wood and burning coal,) and leaves an overplus of $436.79. I will here state the cost per bushel of raising some of my crops: wheat, 38 cents per bushel; barley, 28 cents; oats, 12½ cents; beans, 36¼ cents; timothy seed, 93¾ cents; potatoes, 8¾ cents; hay, about 8s. per acre. My work is principally performed by persons hired by the month; pay from $8 to $12 per month. Have three small dwelling houses that I usually rent for about $90 a year to some of my help.

New-York State Agricultural Society.

Premiums awarded at Syracuse.

(*Continued from page* 307.)

Honey—Best 20 lbs., to Aaron Goodwin, Brownville, $5.

Bee Hives—Dugdall's patent Moth-proof, Thomas M'Clintock, Diploma.

Reeled Silk—1. (name not ascertained) Diploma and $5—2. N. M. Coburn, Stockbridge, Trans.

Sewing Silk—1. Jeffrey Hutchinson, Riverhead, $8—2. Parmelia Staats, Buffalo, $5—3. N. M. Coburn, Trans.

Cocoons—But one lot—no premium.

Linen—10 yards—1. Mrs. J. Harrold, Pittstown, $8—2. Mrs. C. Avery, Perryville, $6—3. Mrs. Nelson Van Ness, $4.

Diaper—10 yards—1. Horace Clark, Skaneateles, $6—2. Mrs. J. T. Van Namee, Pittstown, $4—3. Joshua Beard, Milo, $2.

Tow Cloth—1. Mrs. Catharine M'Knight, Syracuse, $5—2. to do., Trans.

Cotton Stockings, Knit—1. Mrs. Wm. Wright, Vernon, $2—2. Mrs. H. Wier, Pittstown, Trans.

Linen Stockings, Knit—1. Mrs. Geo. D. Loomis, Westmoreland, $2—2. Mrs. W. Baker, Lima, Trans.

Sewing Thread, linen—1. Mrs. C. M'Knight, $2—2. Mrs. Levi T. Marshall, Vernon, Trans.

Discretionary—Four cotton stand cloths, Han. Earl, Granby, $2
One linen seamless bag, Mrs. Wier, Pittstown, ... $1
Six grain bags, Aaron Goodwin, Brownville, ... 1
One skein of yarn, A. Howland, Stillwater, ... 1
Ten yards linen cheese strainer, S. W. Abbott, Kirkland, ... 2
Bunch comforter yarn, and zephyr yarn, and cruels, Mrs. C. M'Knight, ... 1
Skein stocking yarn, Mrs. D. S. Severance, Truxton, ... 1
3 skeins woolen yarn, J. C. Collins, West Turin, ... 1
Very superior tent for show grounds, E. C. Williams, Rochester, ... Dip.

MANUFACTURES.

Case blue and black broad cloths, Utica Globe Mills, ... Dip.
Three pieces black broadcloths, D. Kellogg, Skaneateles, Diploma and medal.
One box and two bales sheeting, Jones' Cotton Mills, Seth C. Jones, Rochester, ... Dip.
Mousselin de Laines, J. T. Van Namee, Pittstown, ... Dip.
Twenty-eight woolen shawls, very fine, D. Kellogg, ... Sil. Medal.
Four pieces fancy cassimeres, D. Kellogg, ... Trans.
Three pieces three ply carpets, very good, Schenectady Steam Mills, ... Dip.

NEEDLE, SHELL AND WAX WORK.

Best ornamental needle work, Miss Mary M. Chase, Chatham, ... Dip. and $3
Best ottoman cover, Mrs. T. M. Wood, Syracuse, ... Dip. and $3
Best group of flowers, Miss M. A. Van Voorhees, Lyons, Dip. and $3
Best variety of worsted work, Mrs. R. Howitt, Genesee, Dip. and $3
Best fancy chair work, with needle, two worked worsted chairs, Mrs. H. S. Lansing, Albany, ... Dip. and $3
Fancy chair work, Mrs. C. M. Burnett, Syracuse, ... Dip. and $3
Best fancy arm chair, worked back and seat, 2d premium, Jane McElroy, Albany, ... Dip. and $2
Best worked handkerchief, Mrs. H. R. Smith, Fredonia, Dip. and $3
Best woolen shawl, Luman Shepherd, Skaneateles, ... Dip. and $3
2nd do., Mrs. Aaron Goodwin, Brownville, ... Dip. and $2
Best worked quilt, Miss C. Hammond, Skaneateles, ... Dip. and $3
Best white quilt, John T. Clarke, Onondaga, ... Dip. and $3
Best port folio, worked, Miss E. Cheeseboro, Syracuse, Dip. and $3
Best silk bonnet, Mrs. W. A. Cook, Syracuse, ... Dip. and $3
Best straw bonnet, Miss Mary Maybee, Syracuse, ... Dip. and $3
Best lace capes, Miss Emeline F. Wagner, Fort Plain, Dip. and $3
Best lamp stand mat, Mrs. S. Breese, Skaneateles, ... Dip. and $3
2nd do., Mrs. A. Howland, Stillwater, ... Dip. and $2
Best shell work basket, Mrs. Wm. Baker, Livonia, ... Dip. and $2
Best wax flowers, Mrs. M. A. Van Voorhees, Lyons, .. Dip. and $3
2nd do., Miss Sarah C. Teller, Syracuse, ... Dip. and $2
Discretionary.—Nine pieces needle work, Miss Pardee, Oswego, ... Dip. and $3
Fancy chair work, Mrs. A. Elmendorf, Palmyra, ... Diploma.
Needlework, lady's skirt, Miss M. Wynkoop, Syracuse, Diploma.
Specimen of embroidery, port folio and picture, Miss Mary A. Fleming, Manlius, ... Dip. and $3
Piece needlework, imitation embroidery, Mrs. D. O. Kellogg, Troy, ... Diploma.
Case of needlework, linen, Mrs. A. G. Dayan, Turin, .. Diploma.
Black lace veil, Mrs. A. Howland, Stillwater, ... Trans.
Pair of ottomans, Miss Mary Seymour, Syracuse, ... Diploma.
Two ottoman covers, Mrs. John McCarthy, Syracuse, . Diploma.
Table spread and silk quilt, Mrs. O. S. Gillett, Fayetteville, ... Dip. and $3
Embroidery, Miss Sarah M. Burns, Canajoharie, ... Diploma.
Worsted needlework, Miss E. Terry, Mt. Morris, ... do
Ornamental needlework, Miss E. Dorr, Albany, ... do
Embroidered rocking chair, Mrs. A. Pruyne, Oswego, . do
Case of fancy and domestic articles, Mrs. B. R. Voorhees, Amsterdam, ... Dip. and $3
Cambric handkerchiefs, Miss A. M. Hill, Canton, ... Diploma.
Bed quilt, Mrs Royal Wilcox, Watertown, ... do
Worked curtains, Miss Emily P. Weed, Albany, ... do
Bed spread, Mrs. Aaron Goodwin, Brownville, ... do
Counterpane, A. Bartlett, Syracuse, ... do
Worked quilt, Mrs. M. Gildersleeve, Albany, (84 years of age,) ..... Dip. and $2
White cotton bed quilt, Mrs. D. S. Severance, Truxton, Diploma.
Table spread, Mrs. J. W. Hickox, Syracuse, ... do
Calico quilt, Mrs. Jane M. Wright, Geneva, ... do
Knit sash and shawl, Mrs. A. Goodwin, Brownville, ... do
Cambric quilt, very fine, Mrs. Walker, Georgia, ... do
Knit bed spread, Mrs. D. R. Holmes, Richland, ... do
Worsted needlework, Mrs. E. Allen, Newark, ... do
Portfolio worked, Miss Mary Murdock, Clarkson, ... do
Net lace cape, Miss Elizabeth Cook, Fort Plain, ... do
Moss lamp mat, Mrs. A. Howland, Stillwater, ... Trans.
Dress coat, R. Titsworth, Syracuse, ... Diploma.
Pair divans, Mrs. J. L. Greenman, Syracuse, ... Diploma.
Knitted bed spread, coat, tidy, and two bead baskets, Miss Pixton, blind girl, Westmoreland, ... Dip. and $3
Three pairs slippers, purse, &c., Miss A. J. Kidder, Syracuse, ... Diploma.
Case of flowers, Mrs. T. M. Wood, Syracuse, ... do
Confectionary work, Wm. Ragg, Syracuse, ... do
Needlework, Mrs. C. Huntley, Syracuse, ... do
Lace veil, Miss S. Buel, Waterville, ... $1
Fancy piece of embroidery, Miss M. Seymour, Syracuse, ... Diploma.
Fire screen, Miss Sarah B. Gillet, Syracuse, ... do
Chair back of needlework, Miss Mary Gillet, Syracuse, do
Lot fine shirts, K. V. R. Lansingh, Albany, ... do
Worked bird of Paradise, Mrs. A. L. Green, Utica, ... do
Gipsey telling fortune, needlework, very fine, Mrs. N. Clute, Louisville, Ky., ... do
Two small cases wax flowers, S. B. Gray, Syracuse, . do
Two caps and one head dress, Mrs. W. A. Cook, Syracuse, ... do
Three caps, Miss Maybee, Syracuse, ... Trans.
Pair worked worsted suspenders, Miss Amelia Wallace, Syracuse, ... Diploma.
Six pieces thread lace, Misses Sarah Ann and Lavina Beverstock, Ogdensburgh, ... do
Gentlemen's dressing-gown, Mrs. J. S. Davis, Syracuse, do
Coat, vest and pantaloons, Thomas Cooke, jr., Albany, Dip and $3
Four crotchet collars, N. M. Beacham, jr., Skaneateles, Diploma.
Horn of plenty, worsted work, Mrs. A. W. Bruce, Sullivan, ... Dip. and Trans.
Lace manufactured by Sarah Ann Alderman, ... Dip. and $2
Embroidered sofa pillow, Mrs. A. Pruyne, Oswego, ... Trans.

FLOWERS.

Professional List.—Greatest variety, James Wilson, $5.

Dahlias—Greatest variety, Jas. Wilson, $5—Best 24, Wm. Newcomb, Pittstown, $3.

Roses—Greatest variety, Elwanger & Barry, Rochester, $5—Best 24, Jas. Wilson, $3.

Phloxes—Best ten varieties, Elwanger & Barry, $3—Best Seedling, Jas. Wilson, $2.

Verbenas—Greatest variety, Jas. Wilson, $3—Best 12, Elwanger & Barry, $2—Best Seedling, Jas. Wilson, $2.

Asters—Best collection, Wm. Newcomb, $3.

Pansies—Best collection, Elwanger & Barry, $3.

Amateur List.—Greatest variety, Mrs. E. T. T. Martin, Willow Brook, Silver Medal.

Dahlias—Greatest variety, M. Wells, Jamaica, Sil. Medal—Best 12, Mrs. W. Newcomb, $3.

Roses—Greatest variety, Mrs. E. B. Morgan, Aurora, Sil. Medal—Best 12, Mrs. David Thomas, Aurora, $3.

Phloxes—Best six, Mrs. E. T. T. Martin, $3.

Verbenas—Greatest variety, Mrs. E. T. T. Martin, $3—Best Seedling, Mrs. Prof. Jackson, Schenectady, $2—Best 12, Miss L. G. Whitney, Rochester, $2.

Asters—Best collection, Alphonso Le Coteleux, Buffalo, $3.

Pansies—Greatest variety, Dr. A. Thompson, Aurora, $3—Best 12, Dr. H. Wendell, Albany, $2.

General List, open to all competitors.—Best collection greenhouse plants. Elwanger & Barry, Silver Medal.

Best floral design—1. Mrs. C. B. Sedgwick, Syracuse, Sil. Medal —2. Mrs. W. Newcomb, $3.

Best floral ornament—1. Mrs. Prof. Jackson, Sil. Medal—2. Mrs. E. T. T. Martin, $3.

Best hand bouquet, flat—1. James Wilson, $3—2. Dr. Herman Wendell, $2.

Best hand bouquet, round—1. Jas. Wilson, $3—2. Mrs. White, $2.

Best basket bouquet, with handle, Dr. A. Thompson, $3.

For the most beautifully arranged basket of flowers, Dr. Herman Wendell, Diploma.

To Aurora Horticultural Society, for the best exhibition, Hovey's Col. Fruits.

FRUIT.

Apples—Greatest and best variety—1. Benj. Hodge, Buffalo, Diploma and Hovey's Colored Fruits—2. A. Bryant, Buffalo, $5.

Best 12 varieties table apples—1. B. Hodge, $5—2. A. Bryant, Buffalo, Trans. and $2.

Best 6 winter varieties—1. B. Hodge, $3—2. A. Bryant, Trans. and $2.

Pears—Greatest number of varieties of good pears—1. J. Morse, Cayuga Bridge, Dip. and Hovey's Colored Fruits—2. B. Hodge, $5 —3. J. W. P. Allen, Oswego, Trans.

Best collection of first rate autumn pears—1. John Morse, Dip. and $5—2. J. W. P. Allen, Trans. and $2.

Best collection of newly introduced pears, Dr. Herman Wendell, Dip. and Hovey's Col'd Fruits.

Peaches—Best 12 varieties—1. John Morse, Dip. and $5—2. James M. Whitney, Rochester, $2.

Best 6 varieties, Elwanger & Barry, $3—2. H. G. Dickinson, Lyons, $2.

Best 12 peaches, B. R. Norton, Syracuse, (Crawford's Early,) $2 —2. Abram Vail, Waterloo, Trans.

Plums—Best collection—1. 31 varieties, Dr. Herman Wendell, Dip. and $5—2. 50 varieties, Isaac Dennision, Albany, $3.

Best 6 varieties, Elwanger & Barry, $3—2. C. S. Wilson, Utica, $2

Best 12 plums,—1. R. Woolworth, Syracuse, $2—2. H. G. Dickinson, Trans.

Nectarines—Best and greatest number, J. C. Hastings, Clinton, $3.

Grapes—Best and most extensive variety native grapes, grown in open air—1. John C. Hastings, $5—2. D. Ayres, Amsterdam, $2.

Best 3 varieties grown under glass—1. W. R. Coppock, Buffalo, $5—2. John C. Hastings, $2.

Best dish of native grapes, (Isabella) Rufus Cossett, Trans.

Discretionary—Best grown and matured specimens, (Muscat and Black Hamburg,) — ———, Downing and Am. Fruit Culturist.

3 specimens of grapes, Joseph E. Bloomfield, Mexico, Am. Fruit Culturist.—Two bottles of white and red champagne wine, B. Poppe, Syracuse, Downing.—Specimen of port wine from native grapes Chas. A. Peabody, Columbus, Georgia, Diploma.

Melons—Best specimens water melons, H. N. Langworthy, Rochester, $3—Best specimens musk melons, to do., $3.

Quinces—Best 12 quinces, Elwanger & Barry, $3—2. Lewis Eaton, Buffalo, $2.

FOREIGN FRUITS.

Apples—Best exhibition—1. E. Harkness, Peoria, Illinois, Diploma and Trans.—2. James Dougall, Amherstburgh, C. W., American Fruit Culturist.

Pears—Best exhibition, F. R. Elliott, Cleveland, O., Dip. & Trans. —2. James Dougall, Amherstburgh, Am. Fruit Culturist.

Grapes—Best exhibition, Jas. Dougall, Dip. and Trans.

Discretionary—Dr. J. A. Kennicutt, Elm Grove, Illinois, for a fine exhibition of western apples, Downing's Fruits.

Mr. Overman, Canton, Illinois, for a fine display of apples, Downing's Fruits. Also, to the same, for an exhibition of pears, American Fruit Culturist.

F. R. Elliott, Cleveland, Ohio, fine display of new western apples, Am. Fruit Culturist.

J. Gallup, of Cleveland, Ohio, for fine exhibition of fruit, Downing's Fruits.

J. C. Holmes, Detroit, fine exhibition of apples, Fruit Culturist.

VEGETABLES.

Best 12 carrots, C. F. Crossman, Rochester,	$3
Best 12 table beets, do do	$3
Best 12 onions, N. Culver, Arcadia,	$3
Best 12 tomatoes, C. F. Crossman,	$3
Best 3 heads of cabbage, N. Culver,	$3
Best 12 sweet potatoes, do	$3
Best 2 egg plants, C. F. Crossman,	$3
Best half-peck Lima beans, Jason W. Seward, Rochester,	$3
Best bunch double parsley, C. F. Crossman,	$3
Best 3 squashes, C. F. Crossman,	$3
Largest pumpkin, H. N. Langworthy, Rochester,	$3
Best 12 ears of seed corn. N. Culver,	$3
Best seedling potato, H. Morrison. Montgomery,	$3
Best and greatest variety of vegetables raised by exhibitor, C. F. Crossman,	$5
Discretionary—Half peck Lima beans, J. P. Fogg, Rochester,	$3
Three squashes, Lewis Eaton, Buffalo,	$2
do do C. F. Crossman,	$2
Large pumpkin, N. Culver,	$2
Sweet corn, C. F. Crossman,	$2
Table potatoes, Richard Cheney, Syracuse,	$2
Seedling potatoes, Luman Shepherd, Skaneateles,	$3

PAINTINGS, DRAWINGS AND DAGUERREOTYPES.

Animal painting in oil, by a young artist, B. F. Carpenter, Homer,	Diploma.
Foreign artist, painting of a distinguished Short horn bull, by Mr. Henry Strafford, London,	Diploma.
Pencillings, (The Playmates,) Miss Helen A. St. John, (13 years old,) Fabius,	do
Two Monocromatic paintings, and 2 pieces pencil drawings, by M. A. Hill, Canton,	Commended.
Oil and water color paintings.—Two large monocromatic paintings, Mrs. J. S. Greenman, Syracuse,	Diploma.
Three paintings in water colors on Ivory, Mrs. Anna S. Smith, Syracuse,	do
Drawings in India ink for patent office, H. Searl, Rochester,	do
Specimens of penmanship, J. T. Carr, Ithaca,	do

Daguerreotypes.—The committee divide the award for the best daguerreotypes between D. E. Gavit, Albany, and Evans & Powelson, Buffalo, and a diploma is awarded to each. Mr. McDonnell, Buffalo, presented one picture of rare excellence.

Case cameo likenesses, W. C. Mayhew, Buffalo, Diploma.

STOVES.

Best cooking stove for wood fire, Mathew Murphy, Syracuse, Silver Medal. Second best, "Phoenix Air Tight;" Seymour & Wood, Utica, $5.

Best cooking stove for coal, Forbes, Wright & Co., Syracuse, Silver Medal. Second best, Wm. Wheeler, Troy, $5.

Best parlor stove, "Chandelier," B. P. Learned, Albany, Silver Medal. Second best, Bailey, Wheeler & Co., Utica, $5.

Discretionary.—Flat iron heaters, Charles H. Tozer, Syracuse, Trans.

Self regulator for stoves, Foote & Owen, Seneca Falls, Trans.

Best lot of hollow ware, W. J. Noyes, Troy, Trans.

Morse's (Fire-Grate,) Air Distributor, J. A. Campbell, Buffalo, Trans.

Brass coffee pot, R. H. Kirk, Newport, Diploma.

MISCELLANEOUS.

From the long list of articles noticed by the committee, we select the following as being of most interest to the farmer:

For a pyramid of paper flowers, (elegantly wrought,) Miss Adeline Hayden, Albany, Medal.

Smith's hydraulic ram, with a new mode of regulating the discharge valve, Alpheus B. Smith, Meredith, Silver Medal.

Six iron cistern pumps, one well pump, and one force pump. These have a revolving motion to the spouts, Downs, Mynders & Co., Seneca Falls, Diploma.

A rotary fire engine pump of beautiful arrangement and manufacture, A. W. Cary, Brockport, Silver Medal.

Draining tiles, pipes and collars, manufactured by B. F. Wharteby, Seneca county, in a Tile Machine imported by John Delafield, Esq., of Seneca county, and exhibited by Mr. Delafield, Diploma and Silver Medal.

Five iron pumps, excellent articles, J. P. Cowing, Seneca Falls, Trans.

Dairy Steamer, a well made article, B. F. Greene, Little Falls, Trans.

Portable cider mill and press, Nathan Chapin, Syracuse, Diploma and Transactions.

Rotary steam engine, "Pease's patent," Geo. P. Strong, Rochester, Silver Medal.

Houghton's Bell Telegraph, for public houses, S. A. Hudson Syracuse, Diploma.

Sarcophagus or metallic burying cases, Fitch & Raynor, New-York, Silver Medal.

Machine for making cast iron water and gas pipe, by the centrifugal force of motion, &c., and a cast iron pipe, Thos. I. Lovegrove, Baltimore, Md., Silver Medal.

A finely finished bell, weighing 257 lbs., keyed on letter A, with the following inscription, "Presented to General Zachary Taylor, President of the United States, by Andrew Meneely, founder, West Troy, N. Y., 1849," Andrew Meneely, Silver Medal.

Sets of tools, chisels, augers, hammers, hay knives, &c., a beautiful display, D. R. Barton, Rochester, Silver Medal.

Machine for drilling rocks, M. P. Coons, Lansingburgh, Diploma and Medal.

156 Different patterns of pocket knives and cutlery, very fine, Waterville Manufacturing Company, Waterbury, Ct., Diploma and Silver Medal.

Washing and wringing machine, G. Goodell, Syracuse, Diploma.

Kit of coopers' tools, W. W. Bryan, Rochester, Silver Medal.

GRAIN, FLOUR AND WOOL.

Best sample of winter wheat, one barrel, (white Blue-stem,) Timothy Judson, Portland, $5. Second, H. Murray, Montgomery, $3.

Best sample oats, one barrel, E. R. Dix, Vernon, $5.

Best sample barley, one barrel, E. R. Dix, $5.

Best barrel of flour, Oviat and Stone, Rochester, Diploma. Second, Wm. W. Hanford, Honeoye Falls, Trans.

Best fleece fine wool, J. G. Strean, Washinging, Pa., Diploma.

John Holbert, Chemung, two butter firkins, Diploma and Trans.

☞ It is not improbable that inaccuracies have occurred in the names of persons in the foregoing list, which has been copied from entries in the Secretary's books. It is requested that all errors discovered be reported to the Secretary of the Society without delay, that they may be corrected before the final publication of the awards in the Transactions of the Society.

All information in relation to premiums may be obtained from the Secretary, who will give prompt attention to all inquiries.

B. P. JOHNSON, *Secretary.*

TWIN FOALS.—A pair of twin colts, three months old, well-shaped and of good size, were exhibited at the late State Fair, by PETER G. HOUGHTALING, of De Witt, Onondaga county.

The Veterinary Department.

Influenza in Horses.

Eds. Cultivator—The disease I am about to consider under the above appellation, is better known among horsemen by that of "distemper." From the real nature and proper treatment of this affection not being properly understood, the number of horses which annually fall a sacrifice to its influence is almost beyond conception.

The hcaracter of this, like many other diseases, varies according to the season of the year, as well as the state and condition in which the animal is placed at the time of being attacked. It most frequently occurs when the weather is changeable, particularly in the spring and autumn months; and from being prevalent in some seasons more than in others, it has in consequence been considered to be a contagious disease; but the most probable cause appears to me to be sudden atmospheric changes, as from dry to wet, and from hot to cold. In its simplest or least complicated forms, it bears a resemblance to common cold (catarrh;) the mucous membrane of the "air passages," is its primary and principal seat, generally commencing in the chambers of the nose, and upper part of the throat, extending in some instances down the windpipe, and its ramifications the bronchial tubes; or it may go still further, and ultimately involve the whole substance of the lungs.

In some subjects its attack is very slight. The horse is first observed to be languid and dull; he refuses part or the whole of his feed of grain—occasionally coughs; he is incapable of undergoing any considerable exertion; signs of soreness of his throat are soon observed; the food cannot be swallowed as usual; the slightest compression of the throat makes the animal flinch and sets him coughing; the mouth is dry, and the membranes of the eye and nose are somewhat unusually red. In some severe cases, the soreness of the throat causes the animal to carry his neck stiff, with his nose projected; the food and water, when attempted to be swallowed, is forced back again through the nostrils; the glands about the throat are more or less swollen; the breathing is short, difficult and painful, and attended with a peculiar hoarse sound in the throat. In other instances the membrane lining the lungs, (bronchial,) receives the principal brunt of the disease; the horse now stands in his stall dull and listless, in one particular place; the breathing is short and quick, (but not deeply drawn;) the pulse is accelerated and weak; skin and legs rather warm than cold; membrane of the eye exhibits rather a *yellowish-red* cast; the discharge from the nose is also of a bilious hue.

It is not my intention in this article to attempt a description of all the characters that this disease occasionally assumes, but briefly to notice its most prominent features.

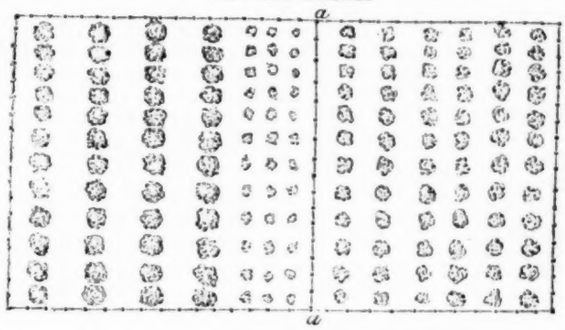
In determining the treatment of "influenza," regard must be paid to the seat and extent of the derangement constituting it, always bearing in mind that the tendency and certain issue of this disease is *debility*. Hence, in the generality of cases, the most cautious treatment is necessary; for if active measures are resorted to, such as large and repeated blood-letting, rowels, strong physic, &c., the horse becomes debilitated, his extremities (legs) enlarged and dropsical, and he either dies of "yellow water," (dropsy,) or remains for a long time in a low and weak state.

At the commencement of the disease, it is necessary to keep the animal in a large stall, without exercise; and in the summer let the temperature be kept as cool as possible, cautiously avoiding a direct current of air. The diet may consist of scalded bran and hay, with tepid water, in which a few drachms of nitrate of potash (nitre) is dissolved, always within his reach; or it may be sweetened with honey or molasses, providing the patient likes it. The horse should be well wisped or brushed, and clothed warmly, particularly when he feels cold and shivers. If the bowels are constipated, two ounces of cream of tartar may be given in the drink every morning, and should the excretions appear pent up, the hand oiled is to be introduced and the rectum emptied, and afterwards a clyster given composed of gruel, linseed tea, or a decoction of slippery elm.

When horses are of great value, I have suspended under their throat bags containing bran and linseed meal poultices, and renew them every two hours, keeping the animal at the same time comfortably clothed. Or the throat may be well fomented with water as hot as a man can bear his hand immersed in, and steaming his nose with the vapor arising from it; after which the glands about the upper part of the windpipe should be well rubbed with the following liniment: alcohol one pint, camphor one ounce, soft soap four ounces, spirit of hartshorn, (water of ammonia,) two ounces. Simple means, such as these, will, in the generality of cases, be followed by the happiest result; a complete restoration to health. Arthur S. Copeman. *Utica.*

The Horticultural Department.

CONDUCTED BY J. J. THOMAS.



Arrangement of the Fruit Garden.

In setting out the different kinds of fruit trees, which when full grown vary much in size, cultivators are often puzzled to know how to arrange them economically, so that the larger may have room enough, and the smaller may not occupy too much space. The above figure represents a mode by which this difficulty has been very successfully removed, by planting the larger sorts in wider rows, and the smaller more nearly together. By this arrangement, the trees stand in rows both ways, and thus no hindrance is imposed to their easy cultivation by horses.

The Apricots, Plums, Nectarines, and other fruits liable to injury by the curculio, among which may also be included some of the earlier and more thin-skinned peaches and cherries, should be planted separately at one end of the fruit garden, and as soon as they commence bearing, a temporary low hurdle fence, *a a*, run across to separate them from the rest for the confinement of pigs, geese, &c. These animals, on the whole, are the most cheap and effectual remedy for the curculio, serving partly to frighten away the insects, and to destroy those which drop in the stung fruit. Other remedies may be added where necessary.

Those who are about commencing such a garden, cannot well take too much pains in the previous

preparation of the ground. It should be very deeply plowed and very thoroughly enriched. If it is subsoiled first, it may be easily trench-plowed afterwards, the latter serving more effectually to intermix the manure to a full depth.

To cultivate the ground, and avoid barking the trees, fasten one horse before the other, using a very short whiffle-tree next the plow, and let a boy ride the forward horse. This arrangment will allow the plow to pass as near the roots as may be desired.

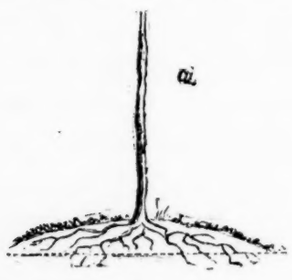
Autumn Work.

Every cultivator of fruit, who expects to keep up a supply, must occasionally renew his plantation. Of some kinds, and more especially peaches, it will often be found both easier and cheaper, to plant young trees, than to resuscitate old ones.

Hardy kinds of fruit trees, as the apple, if set in autumn, will get an earlier start the next season, than by removal in spring. But tender sorts, as the peach and apricot, are more safely transplanted after the danger of winter frost has passed. This danger, however, will scarcely exist if good soil is chosen, and proper care taken.

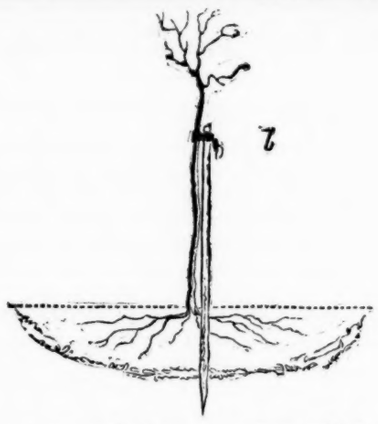
Low and wet soils, or ground which is clayey and holds water like a tub, or such soils as are liable to become flooded before freezing up, are dangerous for tender trees, newly set out by the usual mode. Where it becomes necessary from the force of circumstances to plant on such lands, the holes must be well drained, which may be effected by previously running a deep furrow along the line of the holes, and afterwards placing a small quantity of brush in this furrow before filling it, along which the water may soak away.

But on low and moist soils, it has been found decidedly advantageous to set the trees without digging any holes, as represented in the annexed figure. (*a*.) The tree is set directly upon the rich mellow surface, (indicated by the dotted line,) and



the earth thrown upon the roots so as thoroughly to cover them, and form a very broad and flat mound of earth. This not only gives the roots a deeper soil, but it is nearly impossible for the water to accumulate among them. By throwing the furrows occasionally towards the row, the rising surface will be maintained, and a furrow left between for drainage.

Trees of moderate size, with good broad roots, with one years' shoots properly shortened back, say about one-half or two-thirds of each, will not often need staking; very rarely, if a mound of earth is banked up a foot high round the trunk, till the tree is in leaf. But with large heads and badly cut roots, staking cannot be easily avoided. Where this is the case, a very convenient way is to drive the stake into the bottom of the hole before the earth is thrown in, as in the accompanying figure, (*b*) and subsequently binding the tree with straw to the stake, so as to preclude the possibility of chafing.



There are several other operations which the fruit cultivator must not forget before the winter sets in. Tender trees may be materially protected in some instances by a circle of manure about their stems, the soakings of which will only enrich the soil, till it is removed when warm weather approaches. But one of the best possible means of protection is a *dry soil and subsoil* for all such trees, without which all artificial modes of covering will be of but doubtful efficacy.

Young trees in localities unfavorable to rich cultivation, and which may not be sufficiently vigorous in growth, may be given new vigor by covering the soil several feet around them with yard manure, and sprinkling this with half an inch of ashes, spading the whole under early in spring.

A fresh mound of earth should be banked up round the stems of such trees as may be in the least danger of injury from mice, which will result in their perfect exclusion.

A top-dressing of manure on strawberry beds will protect them from the winter, and enrich, by soaking, the soil near the surface.

Tender raspberries, &c., are very neatly and effectually protected by a covering of evergreen boughs, of moderate thickness, shutting out the sun's rays from the frozen stems being very essential.

The Everbearing Raspberry.

This celebrated sort has excited many inquiries, and has perhaps been overpraised. The common American Black raspberry or "Black-cap," is a valuable kind, and especially adapted to some of the lighter soils, where the Antwerps succeed but imperfectly. The superiority of the Everbearing over this, is pointed out in the following extract of a letter from a very experienced cultivator:—"It is only a *variety* of our wild black raspberry, which, *in very rich ground*, sends up suckers through summer and autumn, flowering and fruiting the same season,—exactly as the last year's *stems* produce bearing *shoots* on the common kind. The quantity of fruit, however, must be very limited; and coming at a time when our finest kinds are in season, I consider it of little value. Other persons, however, may think differently. The everbearing Alpine strawberry, I think, is precisely a parallel case, for I presume this strawberry is not a new species."

Office of Leaves Illustrated.—During the last hot, dry weather, the leaves of one rose bush dried up, and I was apprehensive I should lose the plant,—the only one of the kind I had. The thought struck me that each leaf was pumping out the moisture, and therefore I cut off every one. The result was, the twigs ceased to wither, and the buds are now swelling for a new start. Over deep, loose subsoils, such disasters may rarely occur. Fearing it might not live,

however, I took the additional precaution to set buds from it. DAVID THOMAS. 8 mo. 12, 1849.

American Congress of Fruit Growers.

Pursuant to adjournment, the members of the American congress of Fruit Growers, together with additional delegates from Societies not represented last year, met at Castle Garden in New-York on the 2nd inst. There was a large number of gentlemen present from various parts of the United States, and also, very fine collections of Fruits, full lists of which will appear in the published proceedings, which are to be issued in pamphlet form. MARSHALL P. WILDER, the President of the Congress, took the chair, as did also the Vice Presidents and Secretaries, their appropriate stations. A resolution was passed inviting the President and Vice Presidents of the North Am. Pom. Convention who were present, to take seats on the rostrum, which they accordingly did. At an early hour of the first days' session, Mr. A. J. DOWNING addressed the Congress, urging upon its members the propriety and necessity of harmony among pomologists, and congratulating those present upon the prospect of such harmony, consequent upon the action of the North American Pomological convention, which recently terminated its session at Syracuse, by which Convention a committee of conference had been appointed, to confer with this Congress, upon matters relating to merging the two associations into one organization for future operations, which committee he understood were present. He closed his remarks by moving a resolution that the President of the Congress appoint a committee to confer with the committee of the other association, which was unanimously adopted. The President named Mr. Downing, Dr. W. D. Brinckle, Mr. McIntosh, Professor Olmsted, and Mr. Walker; subsequently the President was added to the committee on a suggestion of Dr. WENDELL that the President of the other organization had been added to its committee. After Mr. DOWNING had closed his remarks, and the committee had been appointed, Dr. HERMAN WENDELL rose, and remarked that, as chairman of the committee of the North American Pomological Convention, who had been appointed to confer with this Congress, he begged leave to coincide fully in all the remarks of Mr. DOWNING in relation to the necessity of harmony and kind feeling among Pomologists; and he could not but hope, from the character of the committee which had been chosen, to confer with the one of which he was a member, that such would be the effect of the Conference of the committees.

Dr. WENDELL added that the committee who were appointed, and who were now present, to confer with the committee just appointed by this Congress, were Dr. J. A. Kennicott, Prof. J. J. Mapes, F. R. Elliott, Col. Benjamin Hodge, Chas. Downing and himself.

The convention then adjourned, in order that the committees might confer together. At its re-assemblage, Col. WILDER remarked that the joint committees had met and chosen him its chairman, and that they had unanimously instructed him to report, as the result of their deliberations:—

1st. That the two associations shall hereafter be merged into one organization, under the title of the AMERICAN POMOLOGICAL CONGRESS.

2nd. That the next meeting under the above title, be held in the city of Cincinnati, during the autumn of 1850,— that the precise time be left for the President of the Ohio Board of Agriculture, and the President of this Congress to determine, and that circulars be issued inviting all kindred associations and societies, as well as individuals interested, to attend its meeting.

3d. That the meetings after the next one be held biennially, and that this Congress recommend that the meeting for 1852, be held in Philadelphia.

The report was unanimously adopted.

Reports from several State committees were then handed in and referred to the appropriate committee.

Mr. DOWNING, chairman of the General Fruit Committee, reported a list of varieties to be recommended for general cultivation; and also a list of varieties to be rejected, which induced an interesting discussion, which consumed the remainder of the day, and the greatest part of the succeeding one, and which was participated in by many of those present. This discussion will be given at length in the published proceedings, which will be issued shortly.

Mr. DOWNING also introduced a Constitution and By-Laws for the AMERICAN POMOLOGICAL CONGRESS. The Congress adjourned sine die on the afternoon of the second day, after an interesting, harmonious ond useful session,—the members congratulating themselves that all difficulties heretofore existing had been so amicably terminated, and separating with great good feeling.

Pear Tree and Fire Blight.

I have within the last few years lost nearly all my most valuable pear trees by the disease called "fire-blight"—commencing at the extremities, and dying downwards. Viewing the disease very much like hydrophobia, incurable, I have felt at liberty to try all kinds of experiments, and from present indications, I am satisfied that I have discovered a remedy.

I have a pear tree in my garden now sending out new shoots from every branch through a bark as black and dead as it can well be. The tree seemed dead in every limb; when I first discovered the leaves changing and fruit withering, I at once applied what had appeared successful the year previous. I say "*appeared*," because other remedies had been used, and it was uncertain which was the real specific. The application was as follows: I removed the earth about the roots near the body as deep as I could conveniently, making an open tunnel around the tree, into which I poured 4 quarts of boiling water; as soon as the water had disappeared, I emptied a quart oil-can of whale oil upon the exposed and steaming roots, and also upon the body of the tree. The next day I syringed the whole tree with oil-soap water, very strong. Shortly after, I discovered a new bark forming under the black, dead bark outside, and now the tree is really a curiosity.

My impression is that the real specific is the whale oil, but as I had used the boiling water in both experiments, it should be mentioned as a concomitant, and it may be found essential to a cure. The tree upon which I tried the same remedy last year was not as much diseased, and having cut off the black part, I had no opportunity to discover the effect upon the diseased limbs. The tree revived at once, and has since evinced no symptoms of disease. J. W. F. *Hudson, July* 19.

Stereotyped Errors.

Extract from the letter of a correspondent:—"There is an article going the rounds, taken from the American Agriculturist, that contains a number of fictions, such as that the *peach* was a poisonous almond, (when properly it don't belong to the same genus,) and that it was introduced into Persia to poison their arrows with its flesh! That the nectarine and apricot are natural

"hybridation" between the peach and plum; (the apricot is a distinct *genus*, containing at least two species;) that cultivation has given to the cherry a separate stem for each berry, thus improving its quality! That cabbage is derived from the common sea-kale!"

Varieties of Fruit.

Eds. Cultivator—On the 246th page, under the head of "Horticultural Items," you copy from the *Southern Cultivator* the remarks of a correspondent concerning fruits. This gentleman says in so many words, that out of all the choicest varieties imported from France, England, and the North, "there is not one tree that has borne fruit equal in quantity or quality to our common native kinds." Just there I am at issue with any man, North, South, East or West. I have an opinion diametrically opposite. And lest this correspondent may deter our friends "in the South and elsewhere about" our country from making purchases of improved fruits, I beg to say, I think he is either very fortunate in having very superior "common native kinds," or very unfortunate in only seeing or hearing of very inferior "common" foreign kinds.

To the end that your readers may know what opportunity I have had to be a judge, permit me to say, I have been in the South over 40 years, born in Columbia, S. C., where N. Herbmont and J. S. Guignard, Esqrs., both lived, (both were prominent horticulturists 30 years ago;) I lived in Philadelphia two years, and have been in Mississippi 19 years.

My father had a fine orchard of apples, peaches and plums 30 years ago, and was intimate with the two gentlemen named. I began to purchase foreign trees in 1833, and to grow seedlings a year or more prior, and brought peach stones from the New Jersey orchards home with me in 1829. I have grown, fruited, and cut down not short of 1000 seedling peach trees. I have seen and eaten the peach, North, South and West. I have had ripen this year not less than 80 to 100 varieties of the peach, and taken notes of 70 varieties. I have had fruit here, not less than 20 varieties of the apple this year. Will this give me any right to give an opinion? But further—in my section of this State, Mr. Lambert—in Vicksburg—has an orchard, which he markets the fruit of, and though surrounded by thousands of peach trees, no seedling fruit can sell by side of his own at half price.

In my orchard there are about 2000 peach trees, numbering about 140 varieties. Some are *seedlings* of Mississippi, but generally *these* are varieties that ripen *after* the foreign are gone; some early varieties are excellent, which are natives, but they are uncommon, and are not, one out of ten thousand trees that ripen, say, in July. I allude particularly to Elmira and Magruder, the only two that I have yet seen that will at all compare with early Tillotson or early York *true;* and no one who has tasted fruits here, at Lambert's or Hatch's, will pretend to bring in comparison the "common" or uncommon "native varieties."

Readers of agricultural papers pretty generally know my name, and know that I am always for my own, my native land, but in this matter I cannot advocate the native fruit against an absolute demonstration. Let me ask, what are the foreign varieties of peaches? They were seedlings, but they are selections from every land, North, South, East and West, across the water, and from both continents, and to get these 140 varieties, there were probably millions discarded as worthless, and almost a century in making the selection. Shall we at a dash of the pen, discard the judgment and the experience of our forefathers?

A Michigan man says, we have the clime of the peach; a Philadelphian insists that he has the very same; a South Carolinian finds nothing at all equal to his seedlings, a distinguished jurist of my own land, says a little Dr. of my name is doing incalculable injury by advising the *improved*, (I say the selected) fruits—and I say France and England, and New-York, and Massachusetts, or even Mississippi, have given fruits worthy of culture.

There is no possible way of proving these matters. I heard of a woman once who fancied to kiss a cow; this was all *taste*, and we cannot combat that.

This I will do. If any man from Michigan to Florida, from Maine to California, will furnish me with 20 peach trees, ripening from June 10 to Sept. 1, equal to Early York, Crawford's Early Melocoton, Royal George, Smooth Leaf, Bellegarde, Oldmixon Cling, Druid Hill, Smooth late, &c., I will give undoubted security that I will give $100 for the 20 trees, so soon as a jury of 12 will pronounce them only equal to the above, and of that No. 1 class of peaches which ripen in succession. I do not this as a banter. I have no desire this way. But if I could get such trees, I could sell of young trees $100 worth in a year, and then be known as the individual who did so much for my country.

Now these trees may be in the South, and natives too, but to collect them would cost more time and money than they are worth. I have been collecting for five years, have begged for the best natives, and but five of the very best do I find worth culture.

I want peaches from July 1st to Nov. 1st. Would I act wisely to collect seed from every direction, plant and cultivate probably 1000 trees to get 20 varieties? Or had I not better pay $10 for the 20 trees that are certified to be ripening in succession and to be No. 1?

I know there are choice seedlings, for I have introduced two myself. I know the Lemon Cling, Heath, Columbia, and some others will produce very similar and often excellent peaches, but this only makes the rule stronger.

Where have the thousand and one varieties of the peach come from, if seed from good trees will produce good fruit?

Nobody would plant seed from a diminutive half ripe peach, if they could get the best, and of course would never have the mean.

Go into any seedling orchard in America and get 20—aye, 10, or 5 varieties of peaches equal to Crawford's Early or Late, and I will go into the nearest and show you three-fourths not worth culture.

I have sold trees to gentlemen born in the South, who were sixty years of age. Are they so foolish as to buy of me inferior fruit, after seeing the fruit?

I have sold fruit trees, though I am a cotton-planter. And I dare think I have the largest variety of fruits owned by any amateur horticulturist—a private person—in these States. M. W. Philips. *Edwards, Miss., August* 31, 1849.

Haskell Sweet Apple.

In the last No. of *The Cultivator*, under the Horticultural Department, I see, in answer to inquires respecting the best sweet apples, you name the Haskell Sweet, for the fall.

I should be pleased to know from you, if this is the same apple described by Cole, in his recent fruit book. If it is, it will present the singular fact of an apple of high merit disseminated at a distance, and yet here in Essex county hardly known at all beyond the town (Ipswich) where it originated. It would also confirm my own opinion of its superior qualities.

I know not why Mr. Cole calls this the Sassafras apple. The original stock is now standing on a farm once owned by a Dea. Haskell, whence its name. Allen W. Dodge. *Hamilton, Mass., August* 24, 1849.

[This is the same as Cole's Sassafras apple—it has been cultivated by Robert Manning, of Salem, who

thinks it the best autumn *sweet* apple—it has also proved fine at Macedon, in western New-York. Ed.]

The Chinese Chrysanthemum.

The chief attraction of this plant is the lateness of its period of flowering. In mild autumns, succeeding the dahlia, it continues flowering in the

87—THE CHRYSANTHEMUM.

warm sheltered border, till finally checked by the severe frosts of approaching winter. The roots, with us, have endured the severest winters unprotected. Treated as a green-house plant, and kept in neat compact bushes, instead of the long, slender, bare stems, too often seen, it forms a fine blooming ornament for the early part of winter. The following remarks on the mode of treating this plant, adopted by the Chinese, who are very successful in its culture, are copied from a correspondent (Robert Fortune) of the London *Gardeners' Chronicle*:—

"The method of cultivating the Chrysanthemum in China is as follows. Cuttings are struck every year from the young shoots, in the same manner as we do in England. When they are rooted, they are potted off at once into the pots in which they are to grow and bloom; that is, they are grown upon what would be called by our gardeners "the one-shift system."

"The soil used in potting is of a very rich description. About Canton it is generally obtained, in the first instance, from the bottom of lakes or ponds, where the Nelumbeum or Water-Lily grows. It is then laid up to dry and pulverise for some months, when it is mixed with old night-soil taken from the manure tanks found in every garden. A heap of this kind, after being laid up for some time and frequently turned over, is in a fit state for potting the Chrysanthenum. Manure water, taken also from the tank already noticed, is liberally supplied during the growing season, and the effects are visable in the luxuriant dark green leaves which cover the plants.

"In forming the plants into nice compact bushes, which, with due defference to Chinese taste, I think much prettier than animals and "seven-storied pagodas," their system is as follows: The plants are trained each with a single stem; this is forced to send out numerous laterals near its base, and these are tied down in a neat and regular manner with strings of silk thread. By having the plants clothed with branches in this way, and by keeping the leaves in a green and healthy state, the specimens never have that bare and broom-headed appearance which they often present in England when they are taken into the green-house in winter.

"About Shanghae and Ningpo the Chrysanthemum is still better managed than it is near Canton; but the success which attends it may also be attributed, partly at least, to the more favorable nature of the climate, the plant being indigenous to the central or more northern parts of the empire. The system of cultivation is nearly the same; the main points attended to being those which have been noticed, namely, choosing a rich soil, planting at once into large pots; training to a single stem, and inducing it to send out numerous laterals, and giving liberal supplies of manure water during the growing season. The Chinese are fond of having very large blooms, and, in order to obtain these, they generally pick off all the small flower-buds.

"In China, as in England, the Chrysanthemum flowers during the winter months. When in bloom it is in great request among the people, and is used in the decoration of court-yards, halls and temples. It is everybody's plant, and blooms alike in the garden of the lowly Chinese cottager as in that of the blue-buttoned mandarin.

"Although we are indebted to China for the parents of those varieties of Chrysanthemums which enliven our gardens during the dull months of winter, yet, strange to say, the progeny is more numerous in Europe than in China itself. Some of those beautiful kinds raised by Mr. Salter in France would be much admired even by the Chinese florist. It is a curious fact, however, that many of those kinds, such as formosum and lucidum, which were originally raised from seed in Europe, are also met with in the north of China."

Watering Newly Transplanted Trees.

In very dry seasons, like the present,—or, as it was a few weeks ago,—it is often important to water newly transplanted trees; but the common mode is very objectionable. When the water is poured on the surface, the soil is apt to crack, and let the moisture below escape through the openings, so that its utility may often be very doubtful. Latterly I have applied the water differently. Dig a hole near the tree so as not to disturb its roots, and pour in a pailful. Then draw in the loose earth till the hole is filled, and covered up completely, so that nothing *wet* is visible; and no cracks will ever appear. A tree treated in this manner will not need watering again for a week.

Ligatures for Budding.—All the budding that I have done of late, has been bandaged with the leaves of the *English bulbous Iris*, which are sufficiently strong for this purpose, if gathered and kept from the wet as soon as vegetation ceases. They are even good yet without such precaution, though the ends indicate the approach of decay. Each leaf will make two bandages. David Thomas. 8*mo.* 24, 1849.

☞ This will be found one of the best months in the year to obtain subscribers to "The Cultivator;" and we trust our Agents will give as much attention to the matter as possible.

Blood Horse "Alexander."

This fine animal is owned by Mr. E. H. IRELAND, of Albany. He received the first premium in the class of blood horses at the State Fair at Buffalo, in 1848. He is a horse of commanding appearance, and the committee who awarded him the premium remark—"He is a beautiful blood bay, fine bone, high carriage, and beautiful action. He is eight years old, and a superior horse for all purposes." He has stood in this city for several years, and his patronage has been extensive.

The Farmer's Note-Book.

Trial of Plows in Seneca County.

To the President and Members of the Seneca County Agricultural Society:—

GENTLEMEN—When we received the notice of our appointment to act as judges at the trial of plows in Seneca County, we felt in common with our farming community, the importance of the movement, and the benefit to arise from a careful, judicious accomplishment of the purpose.

As practical farmers, accustomed to the plow and its use, we feel justified in presenting a few remarks in connection with the matter before us, for the consideration of the farmer, and the mechanics, who are disposed to aid us in the proper arrangement of the implements we need in our vocation, and more especially the indispensable and important implement, the PLOW.

We think it has been long evident that caprice and accidental circumstances have given rise to a large catalogue of plows, which, upon trial, have disappointed the hopes and wasted the means of the purchaser; of this class of plows, few, perhaps, have been constructed by makers having a knowledge of the *use* of the implement, and but little of the skill or science necessary for the construction of a *good* plow.

There seems to be another error also prevalent among plow makers, too often adopted by farmers, boding evil to our agricultural success, or at least to a thorough and proper tillage of the soil; we allude to the frequent attempts to produce plows which shall, by turning broad furrows, work over two acres per day, gaining time at the expense of the necessary breaking up and essential pulverising of the soil. Thus, farmers are tempted with plows to turn furrow slices of 14 to 16 inches in width, while the depth rarely exceeds 5¼ inches; we will not deny that circumstances *may* exist where a broad furrow of twelve inches and more in width *may* be useful; but as a general principle, greater *depth* with pulverisation, should be the main object of the plow maker, the second effort being to overcome resistance with the least power.

We feel strong in the opinion, that large masses of soil, turned over in furrows of fourteen inches wide by six inches deep, must require a large outlay of subsequent labor to render the soil friable and in fit condition to receive manure in a well mixed state; neither will the land so treated be in a state to afford thorough nourishment to the seed deposited from the manures intended for it. The gain of time therefore, in rapid plowing by broad furrows, may be and oft times is an expensive system.

Another error in the manufacture of plows, from which, as practical farmers, we are called upon to suffer inconvenience is, the imperfect line of draft presented to our teams, not only because this line is not preserved at right angles with the shoulders of our horses, but also because of the arrangement of the beam as attached to the iron frame of the plow body. In this latter arrangement much difficulty appears to exist, and fancy has too much sway; the obliquity of the beam to the line of the land side, may be necessary in some degree to produce a direct line of draft from the true point of resistance, but as practical men we have reason to object to the too frequent need of shifting our guide

bolts, and the use of other expedients to compensate the erroneous line of draft adopted by the makers. We feel well assured that our agricultural mechanics are abundantly skillful, and possess sufficient science to correct this inconvenience when brought to their notice.

When we consider the object or intent of the plow, we arrive at the fact that it is to perform in the hands of the farmer the same operation, and to produce the same effects, as the *spade* in the hands of the gardener; that is, to turn over and thoroughly to break up the soil. Now the man and his spade acting together is a most complex and perfect tool; but the time is yet to come when a *simple* machine shall be produced to accomplish with *equal excellence* the same results as the man and spade. We may not doubt however, from the vast improvement of late years, that such a machine will in time be constructed; the talent and science of our agricultural mechanics fully justify such expectations, and the rapidly increasing attention of farmers to the study of their vocation, will act as a stimulus to the inventor and a check upon visionary attempts.

With these prefatory remarks, we now present a report of facts connected with the trial of plows, facts which offer to every man of thought and observation much matter for reflection.

On the morning of Thursday, the 30th August, 1849, we reached the grounds selected for the trial of plows. The field presented a generally uniform appearance, gently sloping from the east to west; the soil was a clay loam, rather tenacious, as is most of the wheat land of the fertile county of Seneca; the sod was of timothy with a mixture of clover, and had not been plowed for several years. It should here be mentioned and remembered that since the month of May last, but little rain had fallen in this section of country, which was made manifest by reference to a meteorological table, as well as by the condition of the soil. Nevertheless, as the soil was uniform in its nature, so the resistance offered was relatively the same to each plow, and the trial was alike to all, and under like circumstances.

A stationary power had been well placed, midway between the eastern and western extremes of a plat of ground 150 feet long; a traveller or guide was prepared to bear and direct the rope, in order that each plow might be directed with precision.

Furrows had been previously opened six inches in depth. The plows were entered on the secretary's books in numerical order, and called to the trial in the same order. A substantial dynamometer was placed in our hands with a certificate from the proper officer that the same had been tested and proved by the State standard, and was correct, indicating power as high as one thousand pounds.

An extent of ground was carefully surveyed, and marked into spaces of 30 by 300 feet, for the purpose of exhibiting the manner in which each plow could perform the work required.

With these and other arrangements, our duties were comparatively easy, and as no haste or hurry was permitted, we continued our labor through two successive days, strengthened by the hope and belief that we were entering upon a system which, if continued from year to year, would in due time work a large and positive benefit.

The following table gives a full and particular statement of the trials, classifying the implements in order, from the lesser to the greater power required to overcome the resistance offered.

By Stationary Power.

Depth of forrow, 6 *inches*—*Width of furrow*, 12 *inches*.

	Pounds.
1. Burrall's wheel Plow, No. 2,.....	290
2. Burrall's Wheel Plow, No. 3,.....	295
3. Lamport Iron Beam Plow from Ovid,.....	340
4. Burrall's Wheel Plow, No. 4,.....	345
5. Penn Yan Plow,.....	355
6. Burrall's Wheel Plow, No. 5,.....	356
7. Buckeye Iron Beam,.....	372
8. Crane Plow, with cutter,.....	415
9. Burrall's Landside Plow,.....	427
10. Dundee Plow,.....	441
11. Burrall's Landside, No. 5,.....	485
12. Crane Plow, with coulter,.....	493

By Horse Power.

Depth of furrow, 7 *inches*—*Width of furrow* 13 *inches*.

	Pounds.
1. Burrall's Wheel Plow, No. 3,.....	489
2. Penn Yan Plow,.....	493
3. Burrall's Wheel Plow, No. 5,.....	511
4. Burrall's Wheel Plow, No. 4,.....	519
5. Lamport Iron Beam,.....	520
6. Dundee Plow,.....	520½
7. Burrall's Landside, No. 2,.....	524
8. Crane Plow,.....	533
9. Burrall's Landside, No. 5,.....	673

The trial by horses having been made on the second day, several owners of Plows entered, did not appear in time.

The plowing performed by the several implements was good and uniform, evidencing much skill on the part of the plowmen. Understanding that the chief object of the trial was to ascertain the true and reliable estimate of the *power* necessary for good work, we do not deem it nececsary to particularise the work of any one plow; all was good, and the facts set forth in the above table will enable every man to draw right conclusions and safe estimates.

Among the facts presented to our notice, were two frames of the wheel plow, which had been used for several years, they were worn through the mould board, and the wheel had yielded on its margin, being the substitute for a landside; on examination, the journals or points of the axle of the wheels, were sound and perfect.

Having witnessed the excitement among men of science, as well as among the large assemblage of practical farmers convened on this occasion, we respectfully urge upon the farmers of this State, and upon agricultural mechanics, frequent meetings and interviews upon the plan of, and with similar objects to this meeting in Seneca county; the true interests of both will be substantially promoted, and science will be more kindly courted to deepen our furrows, to pulverise our soils, and thus add to our general prosperity.

Saturday, September 1, 1849.

B. B. Kirtland, Rensselaer Co.,
Elias Cost, Oaks Corners, Ontario Co.
John Mallory, Penn Yan, Yates Co.
Judges of the trial of Plows.

To John Delafield, Esq., President
of the Seneca County Agricultural Society.

Litigation.

In the last paragraph of my article on Litigation, I am made to say "In this respect we are *not* far behind the Danish colonies in the south." I intended to say that *we are* far behind them. A gentleman who spent some months in the island of St. Croix, and who paid particular attention to this subject, informed me that nine suits out of ten are settled before "The Reconciling Commission."

The same gentleman has placed in my hands, a copy of the "Ordinance respecting the Reconciling Institution," issued by the King of Denmark at Copenhagen, 17th December, 1798,

which he received from one of the Judges of that Island. Perhaps I may notice it hereafter. AN OBSERVER.

Oneida Agricultural Society.

We had the pleasure of attending the Show and Fair of the Oneida County Agricultural Society, held at Hampton Village on the 26th and 27th of September last. This was the ninth annual exhibition of the society, and in the opinion of those who have attended on former occasions, it afforded evidence of progress in reference to those objects to which the association is devoted. The writer was previously unacquainted with the agricultural products of the county, except from such specimens as have been presented at our various State Fairs, and had not, therefore, the means of comparing the present with former displays.

As to the live-stock exhibited on this occasion, the cattle and horses were more numerous than at most county exhibitions which we have attended. In respect to quality, the general average of the cattle was hardly as good as we had expected to find. We say it in no captious spirit, but with limited exceptions, the cattle possessed but few of the characteristics indicative of proper breeding; that is, they had not the uniformity of points which showed that the breeders had any distinct or definite objects in view—their occasional good qualities appearing to be rather the result of accident, than a well defined system. We noticed five or six full blood Devons, (rather too small in size for the present standard of that breed,) and a couple of fine short-horn heifers; most of the stock appearing to be a mixture of various breeds with no particular traits of either.

There were many working oxen and steers. Among them we noticed the fine cattle of S. H. Church, which received a silver medal at the late State Show, the oxen of John Bryden, which took the second premium, and the three-year-olds of H. H. Eastman, which took the first premium for steers on the same occasion. Several yoke of the oxen performed well on a loaded cart.

There were but few good swine. Of sheep there were good specimens of Saxons, Merinos, and several pens of mixed blood English sheep. Of poultry, there was a fair show. Mr. Redmond, of Utica, had various kinds of fowls, Dorkings, Javas, Games, &c.; Bremen geese, and several varieties of ducks.

The show of implements was quite large—especially of the various kinds of improved plows, cultivators, straw-cutters, &c. The principal manufactured articles, dairy products, fruits, vegetables, &c., were exhibited in a large tent, forming a collection highly creditable both in extent and quality.

The plowing match was an interesting display of approved plows and of the comparative skill of plowmen. We think there were seventeen competitors. The soil was very firm, being somewhat stony and gravelly, and covered with a tough and close sward, which rendered it difficult to be plowed well, to the depth required—seven inches. It was, however, a very suitable place for such a trial, forming a better test of the capacity of plows for working in a tenacious soil, than is usually obtained on similar occasions. The work was generally well done. In a few instances the furrows were too wide, and consequently laid too flat and heavy. Among the plows used, we noticed the Scotch plows made by Mr. Auld, of New-Hartford, others made by Messrs. Milner of Whitestown, Wilson of Vernon, Pratt of Syracuse, Delano of Mottville, Brainard & Wheeler of Rome, Ruggles, Nourse & Mason of Worcester, Mass., and Smith's Michigan sub-soil plow, offered by Newel French. The latter consists of two plows set one before the other, in the same beam. The forward one skims off two or three inches of the sward and the hinder one goes four or five inches deeper, raising the lower soil and throwing it completely over the sward. What would be the usual working or comparative advantage of this implement for soils in general we are not prepared to say; but on this occasion it left the soil in fine condition for a crop. It was drawn by four horses, and thoroughly stirred and reversed the soil to the depth of nine or ten inches. It required but one man to hold.

The address to the Society was delivered by its President, Henry Rhodes, Esq. It was a sensible, straightforward document, well calculated to urge on the people of the county in the various enterprises which they have already so well begun.

The number of people in attendance on this occasion was not less than eight thousand, not a small proportion of which were ladies; and the spirit of ambition for improvement in most departments was strikingly manifest among all classes.

Farmers' Wives and Daughters.

EDS. CULTIVATOR—I have observed many articles in agricultural and other papers, in reference to farmers' wives in New-England, which I am sorry to see have not met with a very cordial acceptance by that class for whom the authors of these articles have poured forth their sympathies. Some persons who have never entered a farmer's house, and who have not the least conception of the manner in which the wife or daughters spend their time, give such melancholy descriptions of their sufferings, and draw such fabulous pictures of their employment, that it would almost induce the slave at the south to forget the pain of his bleeding back, and the hardships of his daily toil, in sympathy for the degraded and much abused wife of the New England farmer. Doubtless all of that much oppressed class, in order to mitigate whose sufferings these articles are written, feel very thankful to those, who from gallantry, or from the kindness of their hearts, have enlisted in their behalf. But we would like to make one suggestion for their benefit and ours, that they would lay aside their pen until they had informed themselves upon the subject upon which they would write, and we trust they will find their sympathy uncalled for.

There is another class whose opinion in reference to farmer's wives and daughters is scarcely less erroneous, though they have had a personal knowledge of the extent and nature of their employments. Their false ideas arise from the incorrect standard by which they estimate a woman's true worth. There are many who consider *that* labor the hardest to be endured, and that servitude the most severe which affects in the least, the complexion of their delicate hands. It is very natural for them to breath forth their sentimental lamentations for the black-handed objects of their pity, only showing a lack of judgment in observation, and necessarily ridiculous fallacies in conclusions. It is persons of this class, I imagine, who have penned these articles to which we have alluded, and an article of this class, from the *Springfield Republican*, in your last number, is, in my humble opinion, a ridiculous specimen of that most ridiculous class of pieces. That writer complains that the life of the farmer's wife is "nothing but mend and botch, cook and bake," &c., &c. 'T is true, the farmer's wife and daughters *do labor;* but is it not as honorable for them to do that which promotes their health and happiness, as to sit in their parlors, spending their time in embroidery, reading foolish novels, or thumming the piano to the tune of "Susannah, don't you cry," and other popular negro melodies, while a servant girl in the kitchen performs their duties for them. It is said, too, that New-England farmers kill

their wives with hard work. This assertion is too notoriously false to need refutation; and even if the farmers were such brutes, the women of New England are too independent to submit to such treatment.

Where do we look for the healthiest women? Is it among that class who never see the sun rise, or the dew sparkling in his early rays? Or is it among those who are compelled by their avocations to rise early, and to inhale the fresh and invigorating morning air? It is an undoubted fact that farmer's wives and daughters, as a class, are the most healthy, are capable of enduring the greatest fatigue, and consequently live to a greater age.

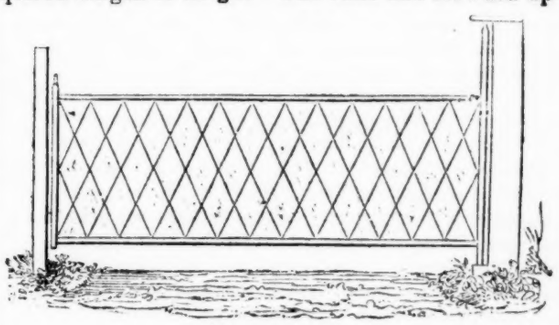
The writer in the Republican accuses the farmers of loving money better than other men, and says, that in order to gratify this passion, they make slaves of their wives, and that "while they are enjoying the ease and luxury of independence, the cares of their faded and broken down wives, know no relaxation." Are farmers more avaricious than other men, and is the dollar *their* only standard of respectability? I have always supposed that wealth was more powerful in the city, and among commercial men, than in an agricultural community: and where, if not in the country, do wives receive their due share of kindness and attention from their husbands? In this section of New England, the wives and daughters enjoy the reward of their toil sooner than the husbands and farmers; owing perhaps, to the fact that the female character is more susceptible to the allurements of fashion and luxury than the other sex, so that there are more fine ladies than gentlemen, to be found in farmer's families. The writer in the Republican goes on to say, "that from such a life, the girls of our day are learning to shrink, because they know they are to be sacrificed." Girls who have been taught to despise labor, and to spend their time in frivolous amusements, would of course shrink from such a life. But those who are willing to be useful, who desire to become truly independent, know that they are making no sacrifice in becoming farmers' wives. There is one class of writers who would deprive the farmer's family of all participation in the accomplishments of modern female education, and consider them fit only for the drudges which the first writer alluded to describes them to be. This latter class would graciously allow them to spend their winter evenings in listening to some useful, practical work on natural history, the management of bees and the like, read by one member of the family, while the rest are employed in knitting. They do not seem to consider them capable of appreciating the beauties of poetry and elegant literature. Perhaps they might permit them to read Thompson's Seasons, and Bloomfield's "Farmer's Boy," as having reference to rural pursuits in general. Is there any reason why a farmer's wife and daughters should not receive the same education, and be allowed to read the same books which are considered proper for females of other classes?

Now I, for one, protest against this constant interference with our rights and privileges. Farmers are as intelligent, and as capable of taking care of themselves as the merchant or mechanic, or the professional man, and they have too much freedom to be placed under the guardianship of those who know nothing about them or their employment. Let us spend our time as we please, provided no other person's rights are interfered with. If we prefer doing our own cooking to having it half done by girls who feel little interest in doing it well, why may we not be allowed the privilege?

There are some who seem to think the farmer in a very degraded condition, and who kindly wish to elevate him. Now if this is really their object, the best way to accomplish it, would be to endeavor to render labor respectable, and to teach the rising generation that industry is the surest road to respectability. There can certainly be no employment so well calculated to refine the character, and develop the noblest faculties of our nature, as farming, provided the cultivation of the mind is not neglected; and for this there is no necessity, and indeed no excuse. Any farmer can find sufficient time and opportunities for reading and study, if he is disposed to improve them. A FARMER'S DAUGHTER. *Manchester, Vt., Sept.* 20, 1849.

A Cheap Farm Gate.

This design is for a gate four feet high and twelve feet long; but they can be made of any required length or height The rails and forward upright are 2+3 inches, and the hind upright 3+4, framed together. The cross pieces may be round, made of small hemlocks and peeled, or they may be of sawed stuff an inch square. The rails are bored with an inch auger, two holes side by side, and slanted each way to accommodate the cross pieces, which are a foot apart. After the gate is put together, nail the cross pieces at each end, and nail them together in the middle with wrought nails, which should be clinched. The post on which the gate is hung, has a plank cap on top with a hole through it for the round tenon on the upright piece of the gate; at the bottom it may turn in a piece of wood morticed into the post, or what is much better, in a stone, with a hole drilled in it about an inch.



89—FARM GATE.

The advantages of this gate are, its cheapness —a man can make one in about six hours, and there is no iron about it except the nails,—and it will not *sag*, as the cross pieces brace each way, thus remedying the great defect to which gates are liable. W. L. EATON. *East Weare, N. H.*

Cisterns for Live Stock.

I have a water-lime cistern ten feet in diameter, and six feet deep, which has been estimated to hold 90 barrels. For nearly two months of our late very dry season, it has chiefly furnished the drink for half a dozen cows and four horses, while many farmers who had no such cisterns, drove their cattle to considerable distances.

In some parts of England it has been found that the rain from the roofs of the necessary buildings on a farm, is sufficient, if saved, for all their live stock through the year; and we put the question, Are not *cisterns* as cheap as *wells?* Many wells in this part of the country, especially in the Hamilton Group, are not fed by springs in severe drouths, and become in effect, cisterns, soon to be exhausted. Without any roof to turn in more water, they are useless till the soaking rains of autumn, saturate not only the soil, but the subsoil to considerable depths. On the contrary, a cistern which depends on a roof for its supply, may find business for its pump after a very moderate shower.

Water-lime cisterns will not yield soft water for a long time after they are in use. Ours was plastered anew five years ago, and great improvement is yet needed in its quality for washing. Another hint may be useful. Water-lime plaster requires to be covered up completely from the frost. After an unsuccessful experiment, we had timbers laid across the cistern, covered with two-inch plank, and pine shavings to the depth of two feet. It was then carefully sodded over, and we have discovered no encroachment by the frost. AQUARIUS.

☞ A lady at my elbow says, the expense (including damage) of driving cows long distances to water, is greater than to turn all the rain from the barn roof into cisterns; and she also suggests that farmers should not bring their cattle round the house, or into the door-yard, where mud would be made for their wives to scold over.

Profits of Farming.

EDS. CULTIVATOR—I notice an article in the September number of *The Cultivator*, signed "A FARMER, *Hillsdale, Columbia County*," containing statements of the comparative productiveness of capital and labor, as applied to farming and other pursuits, suggested by the table in the July number of your paper, giving the estimate of the principal products of Seneca county, for the year 1848. He says—"that notwithstanding the superior advantages and management of the farmers of Seneca county, still the income on their capital and labor is vastly inferior to that of any other of the great industrial interests of our country." Now, on examining that table, I find the following results, viz: that the average nett profit over cost of production on the land devoted to wheat, was $11.25 per acre; on the land in Barley, $6.13 per acre; on that in Oats, $5 per acre; and on the corn lands, $7.25 per acre; and that the average of the whole 64,363 acres, devoted to these four principal products, was $9 per acre.

Assuming the average value of these lands to be $50 per acre, which I imagine is a liberal estimate, I find that the income or nett profit of capital would be, on the wheat lands, 22½ per cent.; on that in barley, 12¼ per cent; on that in oats, 10 per cent; and on that in corn 14½ per cent.; and the average rate upon the whole 64,363 acres, 18 *per cent. nett profit!* Now I would ask, what "other of the great industrial interests of our country" does or can produce an "income on their capital and labor" like this? Certainly not the manufacturers of New England, which I believe to be at this time as profitable as those of any other country in the world—and which, I think I may say without fear of contradiction, have not netted their owners for the ten years past, a profit exceeding 7 per cent. per annum upon their capital.

In the same September number of *The Cultivator*, is a statement of the products of the Lakeland farm of Mr. Foster, in that same Seneca county, in which 55 acres of wheat land, (the only crop of which particulars are given,) are stated to have produced 28 per cent. on the value of the land! Certainly I would not offer this premium farm as an exponent of farming in general, but I take it in some measure as an exponent of what farming *might be*, if the same skill, economy and capital was devoted to it as there is to many other of the great industrial pursuits. Again, "A Farmer" says that "the income of all the other great industrial interests of our country, is shown by the census to be from one hundred to two hundred pr cent. upon their capitals;" and to prove this, quotes in a note, the census of Massachusetts for 1845, where the manufacturing capital of that State is put down at over forty-six millions of dollars, and the value of their products at nearly eighty-eight millions "or," he adds, "near two hundred pr cent. on capital employed, and near $700 annual income from the labor of each individual." Here, it seems to me, is an important error, occasioned by leaving out of view the value of the raw material, which the manufacturers work upon, and which, though constituting a great part of the value of their productions when finished, is yet in no sense *their* production; for example—the cotton manufacturer, out of a pound of cotton, costing 12 cents, produces three yards of cloth, which netts him six cents per yard, amounting to 18 cents. Now the production of *his* labor and capital is not 18 cents—it is only *six cents*, the increased value of the cotton over its cost, and this is about the average proportion of the products of our manufacturers generally. So that instead of taking the *income of capital and labor* employed in manufacturing in Massachusetts at the "value of their products" when sold, it should be stated at only *one-third* of the amount; thus, the income from the capital and labor of the manufacturers of Massachusetts should be put down at twenty-nine millions, instead of eighty-seven millions and over—which would leave for each hand employed, 230 dollars annually, instead of near $700," as stated by your correspondent; and showing too, the earnings of individuals engaged in agriculture, by his own statement, to be nearly seventy dollars per year more than those engaged in manufacturing, &c.

It seems to me that the profits of capital and labor devoted to agriculture, have never been ascertained and understood in this country, and that a more thorough examination and calculation would show, that agriculture might be made to be what God intended it should be, the *most profitable*, as well as the *most natural* and *happy* pursuit of man. ENQUIRER. *Stockbridge, Mass., Oct.* 5, 1849.

Agricultural Show in Scotland.

We have received a copy of "*The Scottish Agricultural Journal*," containing an account of the show of the Royal Northern Agricultural Society, held at Aberdeen in August last. It was the fourth exhibition of this association, and appears to have been a fine display of stock, implements, fruits, &c. At the dinner, at which the Earl of ABERDEEN presided, Mr. PLINY MILES, formerly of Watertown, N. Y., responded, in a very felicitous manner, to a toast. "He said he was a son of a New York farmer who had received three first prizes from agricultural societies. They carried on a reciprocity system in the agricultural societies of the United States, which deserved attention. For instance, the society of New-York co-operated with Upper Canada, and exchanged the right of competing in the respective societies. The exhibition of live-stock which he had seen that day, was superior to what he was accustomed to see in America—not in number, but in quality. He had been extremely well pleased to observe the perfection to which the cultivation of fruits had been carried in Scotland. He had picked strawberries in the open air in Florida, in the month of February; but he had certainly never seen better strawberries, cherries, and peaches, than he saw at the Horticultural Show that day. He had seen, indeed, better pears and apples, but altogether he had been astonished at such an exhibition of fruit in this northern climate, where there must be so short seasons. With reference

to Sir James Elphinstone's remarks regarding the scarcity of agricultural implements, he would take leave to say, that the inventive genius of the Yankee had contrived a great number of these implements. One reason might be the cheap rate at which patents might be secured—for $30 any invention might be patented, from a mouse-trap to a steam-engine. (Laughter and applause.) He was a stranger in this city, and he could say, without compromising himself as an American and a republican, that he had drunk the health of the Queen and Prince Albert, and to the Navy and Army of Great Britain, for he considered that the governments of Great Britain and the United States, differed far more in name than in reality. (Loud cheers.) He considered it rational, and even laudable, in an individual to leave his own country with some national prejudice in its favor; but whatever prejudice he entertained against Great Britain had been entirely dispelled since his acquaintance with it. In conclusion, Mr. Miles returned his cordial thanks for the honor which had been done to his country and to himself. (Loud applause.)"

Improved Cotswold Sheep.

In answer to "J. P. R." in our September number, J. W. Ware, Esq., of Berryville, Clark county, Va., writes: "I import the improved Cotswold, called by some New Oxfordshire, for my own private use, not for speculation by sale." He states that he has purchased a part of his sheep from Mr. Charles Large, near Lechdale, Oxfordshire. Mr. W. says: "I wrote to him to send me none but Royal Prize Sheep, whenever he could spare them. I put no limit, but paid the sum he demanded; presuming that the best, of course, would be exhibited for the prize, and especially directing none to be sent but the prize sheep. Last year I received two ewes from the pen that took the prize at the Royal Society's Show at York; this year I have purchased five of the ewes that took the prize at the Royal Agricultural Fair at Norwich, to come over this fall after being tupped by a ram weighing, alive, 420 lbs., which took the prize of £40 as the best shearling long-woolled ram, at the Royal Agricultural Society's Show in 1847. When I use the words 'royal prize,' I mean, always, the prize given by the Royal Agricultural Society of England. I do so to avoid an unnecessary frequent multiplicity of words, believing the term used would be fully understood, for I am not aware that the *Queen herself individually* gave any prize, and of coure I could not be suspected of wishing to mislead by an improper expression."

Decay of Timber.

Eds. Cultivator—There are few people more deeply interested in that species of knowledge, which will enable us to detect the cause, and lead us to the discovery of means whereby we may delay the decay of timber used in building, than the farmer; yet how few there are who pretend to any knowledge on the subject, further than the adoption of some favorite idea, such as setting fence-posts top-end in the ground, or cutting timber at a particular time in the moon, or charring the lower end of fence posts, &c., without going back further than the first step towards the cause, if any exists, of the success of a fancy theory.

Circumstances frequently arise in practice which would seem to verify any favorite theory that might be adopted. For instance, there are no two adjoining trees of the same species, perhaps, that would endure the same length of time without decay; nor is there any one tree whose parts are all equally durable; the top part may be more durable than the butt, in one tree; and another in the immediate vicinity, of the same kind, but of different age, may be precisely the reverse. Hence the various conclusions which have been arrived at from experiments without a knowledge of the principles of premature decay.

There is not a month in the year that has not authority for being the best time for felling timber; and each author gives philosophical reasons as far as they go; but as the business of our philosophy is to sustain our conclusions, which have been established by experience, and of course, (as we think) cannot be wrong, we barely bring a few isolated facts as sufficient proof after our experience, to establish the theory beyond a doubt, when perhaps if those same facts were presented in connection with others, which would serve to arrange them in their proper order, they would sustain quite a different conclusion. There is a right place to begin, as all good farmers will be inclined to admit, to do anything they have to do, and no one has more to do with this subject; which is best considered, by seeking to designate that part of, or substance in timber, in which decay first commences. This has been identified by Mr. Kyan as albumen, which he says is the cause of putrefactive fermentation. The celebrated chemist Fourcroy, says there are five distinct species of vegetable fermentation; the saccharine, the coloring, the vinous, the acetous, and the putrefactive; but none are concerned in premature decay but the putrefactive. If then we take Mr. Kyan's opinion, which seems to be generally admitted by all who have observed the subject to any extent, we shall arrive at our conclusion, that the year and the season of the year in which a tree contains the least albumen, is the best time to cut it, unless the fibres of the wood have been too much weakened by age or disease. All timber for durability, should be mature in its growth, and if not diseased, it may stand a number of years after to advantage, if to guard against decay be the main object.

There is undoubtedly a particular time in the year when timber may be cut to favor its durability. In the present unsettled state of that point, we may locate it in the month of October in this climate, for more reasons than have ever been mentioned. We have good authority for believing that there is in the timber at this season, the smallest quantity of albumen and cambium, if not all other organic fluids liable to produce that species of fermentation which furnishes the acid necessary to unite with the albumen to produce the putrefactive fermentation. In cutting timber at this season of the year, we have the advantage of five or six months of weather cold enough to prevent any species of fermentation, or the propagation of any species of fungi; which is time enough, with proper care, to prevent any inherent cause of decay.

We also have good authority for cutting timber in mid-winter; but our own observation will create a doubt, when we see a tree with full grown leaves in the spring, that had been entirely severed from its roots the previous winter. The decay of timber is generally accompanied, if not caused, by some species of fungi, the spores being attracted by the albumen, or perhaps by the action of the albumen and acid, which together produce that species of fermentation peculiar to decay. Whether this be the case or not, it is evident from every day observation, that the exciting cause of decay in healthy timber, is produced by some external influence, which enters the pores of the wood where the grains have been cut across, more readily than it does lat-

erally through the unbroken grains, which is the cause of decay in the ends of a log, while all other parts remain comparatively sound. It also favors the frequent observation, that a round fence post, the full size of the tree, will last longer than one of the same size split from a larger tree.

The idea of charring the lower ends of fence posts, was probably taken from the well known practice of architects charring wood to be laid into walls, or in places where it is subject to dry rot. It can be of but little service to timber for any purpose, that has not been thoroughly seasoned, and afterwards kept dry. The object of charring is to destroy the seeds or spawn of the fungi, if any have accumulated on the surface of the timber, but if the timber be not dry, or if exposed to wet afterwards, the charring can be of very little if any protection against the common effects of moisture in timber. It is possible that the moisture which enters through the charred surface, may be so purified as not to be so liable to putrefactive fermentation, as that which enters through other parts; then in order to derive benefit from charring fence posts, they should be charred above as well as below ground. DEAN.—*Lyonsdale, N. Y.*

Exhibitions of Agricultural Societies.

A greater interest has been manifested in these exhibitions the present year, than at any former period. From all quarters we hear that the displays have been on an increased scale, and the people have turned out to witness them in unprecedented crowds, often in face of wind and storm. We have received accounts from the following societies:

NEW YORK.—Counties—Queens, Suffolk, Rensselaer, Saratoga, Washington, Essex, Clinton, Jefferson, Fulton, Herkimer, Oneida, Madison, Onondaga, Seneca, Cayuga, Ontario, Orleans, Monroe, Livingston, Genesee, Erie, Niagara, Wayne. In addition to these, we have accounts from several town associations, particularly Avon, Livingston county, and Vernon, Oneida county. Several counties have adopted the plan of making permanent enclosures and erecting suitable buildings for the shows, charging all, except members of the societies and invited guests, a small admission-fee. This is the true plan, and will, under proper management, put the societies in possession of funds which may be used for the promotion of various improvements. The Rensselaer county society has excellent fixtures at Troy, and received at the last exhibition $2,200. Saratoga has provided grounds at Mechaniesville, and at its first exhibition there, the present season, received a liberal acquisition to its funds. Essex and Clinton have made a location at Keeseville, and hold their exhibitions on the same grounds and at the same time. A collection of seven to eight hundred dollars, was made at the first show held under this system, this season.

CONNECTICUT.—Litchfield, Hartford, New Haven, and Fairfield.

MASSACHUSETTS.—Berkshire, (shows at Pittsfield and Great Barrington) Worcester, Norfolk, Essex, Middlesex, Plymouth, Bristol.

VERMONT.—Windsor, Rutland, Addison and Chittenden.

MICHIGAN.—Frst State Fair, at Detroit—$2,800 received from the sale of tickets and for memberships.

GEORGIA.—State Fair at Stone Mountain—crowd estimated at six thousand. The *Southern Cultivator* says it was "the great event of the season," and that "everybody went away highly gratified."

We shall undoubtedly receive further accounts, and be able to give more particulars hereafter.

In relation to Seneca Co., N. Y., J. DELAFIELD, Esq., writes: "Our Fair was most successful. The cattle were numerous and excellent. The horses equal to any former exhibition; and this county has produced many of the finest animals in the state. The other departments were good, and so generally interesting was this celebration, that the village of Ovid was crowded for two days, taxing the liberal hospitality of all the residents, for the accommodation and comfort of visitors from a distance. The claim was cheerfully met, and thousands dispersed at the closing of the fair, with the kindest feelings, and hopes for many and oft-repeated gatherings, like this county fair."

Farming in Pennsylvania.

The following notice of the products of several farms in Montgomery county, Pa., is furnished by the Norristown Register:

Mr. George Hiltner, who lives on his farm, in the northeastern part of the township, containing 22 acres of cleared land, gave an account of its products, as follows: Wheat, 16 bush. on one acre, amount $17,60. Rye, 50 bush. on 3 acres, amount $30. Corn, 60 bush. on 3 acres, amount $36. Apples, 20 bush., amount $2. Hay, 8 tons on 8 acres, amount $96. Oats, 40 bush. on 3 acres, amount $12. Poultry, 50, amount $12. Eggs, 50 doz., amount $6,25. Butter, 500 lbs, amount $100. Calves, 4, amount $20. Potatoes, 40 bush., amount $28. Pork, 600 lbs., amount $36. The whole amount from the products of Mr. H.'s farm was $395.85.

Mr. Francis Davis, who lives on his farm, in the eastern part of the township, not far from the line between it and Whitpain, containing 47 acres of cleared land, gave the following account of its products: Wheat 100 bush. on 4½ acres, amount $105. Rye, 14 bush. on 1½ acre, amount $9,80. Corn, 200 bush. on 7 acres, amount $120. Hay, 20 tons, on 14 acres, amount $240. Oats, 200 bush. on 6 acres, amount $60. Poultry, 60, amount $18. Eggs, 150 doz., amount $24. Butter, 900 lbs., amount $180. Calves, 6, amount $24. Potatoes, 5 bush., amount $4. Pork, 1000 lbs., amount $60. The whole amount from the products of Mr. D.'s farm was $984,80.

Mr. George Freas, who lives on his farm, near the last mentioned, containing 44 acres of cleared land, gave an account of its products as follows: Wheat, 120 bush. on 5 acres, amount $138. Rye 15 bush. on ½ acre, amount $12. Corn, 200 bush. on 6 acres, amount $120. Apples, 60 bush. amount $12. Hay, 22 tons on 14 acres, amount $264. Oats, 240 bush. on 6 acres, amount $72. Poultry, 100, amount $40. Eggs, 100 doz., amount $14. Butter, 1200 lbs., amount $240. Calves, 7, amount $35. Potatoes, 20 bush., amount $16. Pork, 1500 lbs., amount $90. The whole amount from the products of Mr. F.'s farm was $1053.

Mr. Henry Lysinger, who lives on the Germantown and Perkiomen turnpike, on his little farm, containing 11 acres of cleared land, gave an account of the products as follows: Wheat, 20 bush. on 1 acre, amount $22. Rye, 12 bush. on ¼ acre, amount $8.40. Corn, 75 bush. on 1½ acre, amount $45. Apples, 100 bush., amount $25. Hay, 6 tons, on 3 acres, amount $72. Poultry, 30, amount $10. Eggs, 25 doz., amount $5. Butter, 350 lbs., amount $70. Calves, 2, amount $10. Potatoes, 8 bush., amount $6. Pork, 700 lbs., amount $42. The whole amount from the products of Mr. L.'s little farm, was $313.40.

Mr. Andrew Reed gave an account of the products of the farm on which he lives, near Plymouth creek, containing 117 acres of cleared land, as follows, viz.: Wheat, 400 bush. on 14 acres, amounting to, at prices sold, $420. Rye, 15 bush., on 1

acre, amount $12. Corn, 400 bush. on 15 acres, amount $260. Apples, 500 bush., amount $65. Hay, 50 tons, on 30 acres, amount $650. Oats, 500 bush. on 15 acres, amount $175. Poultry, 100, amount $30. Eggs, 150 doz., amount $22.50. Butter, 4000 lbs., amount $1160. Calves sold, 22, amount $154. Potatoes, 60 bush., amount $40. Pork, 3500 lbs., amount $210. The whole amount of products from the farm on which Mr. R. lives, was $3198.50. Mr. Reed has 23 very fine cows, some of which are worth from $40 to $50.

Mr. Henry Ortlip, who lives on a farm about a mile below Norristown, on the Ridgeroad turnpike, containing 48 acres of cleared land, and 4 acres of woodland, and keeps a public house, gave the following account of its products, viz.: Wheat, 100 bush., on 7 acres of land, amounting to, at prices sold, $110. Rye, 50 bush. on 5 acres, amount $35. Corn, 120 bush. on 7 acres, amount $72. Apples, 50 bush., amount $10. Hay, 15 tons on 14 acres, amount $225. Oats, 224 bush. on 9 acres, amount $75. Poultry, 70, amount $28. Eggs, 100 doz., amount $14. Butter, 150 lbs., amount $37.50. Timothy seed, 1 bush., amount $3. Calves sold, 2, amount $10. Potatoes, 30 bush., amount $25. Pork, 1100 lbs., amount $66. The whole amount of the products from the farm on which Mr. O. lives, was $710.50.

Mr. Thomas Livezy, who lives on his farm, on the Germantown and Perkiomen turnpike, containing 105 acres of cleared land, and 11 acres of woodland, gave the following account of the products from his farm, viz.: Wheat, 500 bush., on 16 acres, amount $550. Rye, on 1 acre, amount $20. Corn, 800 bush. on 15 acres, amount $480. Apples, 20 bush., amount $8. Turneps, 200 bush., amount $40. Hay, 70 tons, on 44 acres, $1050. Oats, 300 bush., on 6 acres, amount $100. Poultry, 100, amount $25. Eggs, 60 doz., amount $9. Butter, 400 lbs., amount $80. Cattle sold as products of his farm, amount $300. Clover seed, 7 bush., amount $35. Timothy seed, 3 bush., amount $9. Calves sold, 5, amount $25. Potatoes, 70 bush., amount $42. Pork, 2500 lbs., amount $150. The whole amount of the products from Mr. L.'s farm, was $2923.

November.

BY A FARMER'S WIFE.

I come, I come, with an aspect drear
To scatter the leaves, all wither'd and sere;
I blow o'er the landscape my frosty breath,
The plants to prepare for a wintry death.

Sad is my wail in the merchant's ear—
Visions of shipwreck and tempests appear;
He turns on his pillow, unable to sleep,
Or leans on his desk, in reverie deep.

Av'rice gloats o'er oppression and wrong,
The miser scowls, as I whisper, how long
Wilt thou, from the hireling, wages withhold?
The curse of the kind, corrupteth thy gold!

The lone orphans listen in sorrow,
As they bitterly think of the morrow—
To them I would say, this truth ye may heed,
A *Father* thou hast, a *Friend* in thy need.

Through the long nights and cloudy days,
I pipe to the weary farmer my lays:
They are not sad to the son of the soil;
I bid him enjoy the fruit of his toil.

The granary filled, the harvest all home,
His flocks and his herds forbidden to roam;
Hale sons and daughters encircle his hearth—
A king might exchange his crown for their mirth.

List to my song—remember the poor—
Winter, pale winter, is e'en at the door—
The blessings of those who share of thy bread
A halo of joy will be to thy head.

Maryland State Fair.

Hon. JOHN A. KING, President of the New-York State Agricultural Socity, and B. P. JOHNSON, Esq., Secretary of that association, attended the Maryland State Fair as delegates from this State. Mr. J. gives an interesting account of the show in the Journal of this city, from which we take the following:

This is the second exhibition of the society, and reflects great credit on its enterprising officers. The exhibition of cattle was remarkably good, and many of the animals will bear a comparison with any which have been shown in New-York, or in any other portion of this country. Col. CALVERT, the President of the Society, exhibited 29 full bred short horns, two Holstein or Dutch Cows, four Aldernys, several Ayrshires, one Spanish Cow, one Devon, and in all, some forty or more. Many of these animals were of unsurpassed excellence. His short horn cows are mostly prime milkers; several of them yielding, I was assured, from 25 to 34 quarts of milk daily. Their appearance indicated first rate dairy properties. He had two aged bulls, to whom I believe the first and second premiums were awarded. One of them, mostly red, a fine, noble animal—that I doubt not will leave valuable stock—several heifers from him were on the ground, and their color and form would satisfy even Devon men, who so much admire the red.

Col. Horace Capron, of Prince George's county, had the next largest lot of cattle. His were Short Horns, Devons, Ayrshires, working oxen, &c. Several of his animals were of rare excellence, both Short Horn, Devon and Ayrshire. His Bull "Valentine" received the first premium last year—and he had two very superior Devon Bulls—with all the fineness, style, and beauty of that breed. Among his Cows were some very extraordinary fine animals. His Oxen were Devons and equalled our best. This stock was for sale; and I noticed that many had been sold at prices varying, I believe, for the young and old, from $50 to $275. Col. Capron had three span of Mules on the ground that went far to obviate my objection to them. I now unite with Mr. Skinner in favor of these useful animals. They were large, active and vigorous animals, and sold readily for $900 the team.

There were a number of other exhibitions of fine stock, but I cannot particularise.

A. Clement, of Philadelphia, made a fine show of Short Horn and mixed stock.

Mr. Holcomb, of Delaware, fine show of Devons, &c.

W. G. Dobbin, of Maryland, exhibited a Holstein Bull and two Cows, imported. The bull was a very fine animal, color black and white, and the cows showed, I thought, valuable dairy properties, for which the breed is noted in Europe.

The display of long wooled Sheep was unusually rich. C. B. Reybold, of Delaware, had his unrivalled New Oxfordshires on the ground; one fat two year old weather was slaughtered; his weight not far from 190 lbs. There were several pens of Sheep—among others one from Virginia of the same breed as Mr. Reybold's, and of perhaps equal excellence. No fine wooled sheep exhibited; and but one pen of South Downs which I noticed.

The Swine were very superior: Chester county, Leicester, Delaware, Berkshire and Dutchess county breeds were the most prominent. J. Wilkinson of the Mount Airy School, near Philadelphia, formerly from Dutchess county, exhibited the Dutchess county breed, which were much admired. He sold

three pairs of pigs 6 months old at $50 a pair to go to Virginia and Georgia, and I should think a cross from them would materially improve the swine of of the South. The show of poultry was very extensive and of many choice varieties. I was surprised to find that horses for which Maryland was once so distinguished, are now much neglected. Only some half a dozen were on the ground, and those of no very superior attraction.

The show of implements was large. The ladies' department rather limited. The dairy products represented by a few samples of butter, and the show of vegetables not large.

Gen. Taylor visited the grounds, Wednesday, Thursday and Friday, and expressed himself highly gratified with the entire exhibition. He mingled freely with the farmers, and showed by his inquiries and examinations that he was familiar with the implements necessary for the farmer, and that he was an attentive observer of the improvements going on in our country, to advance this great interest.

The receipts at the gate on the 2d day of the exhibition I understood were about $1,000; and I should think quite as much the last day.

Patent Hoops.

We noticed at the late Fair a specimen of hoops made on a new plan, and have received the following description of them:

These patent hoops were made by Heffron and Landphere's Hoop Machine. The process is as follows: The timber is first sawed into boards, then split by a buzz-saw into square pieces, then turned and slit by the machine, each square piece making two, half round hoops. Any tough timber, however large, can be thus converted into hoops of a most beautiful appearance. They set well by soaking in a vat of cold water; but hot water is better. The butter from one dairy has been packed in firkins bound with these hoops, and a portion sold in New-York at a price equal to the best "fancy hoops." The Ohio Fancy Flour Hoop, sells the flour thus bound at about five per cent. more than flour equally as good bound with the flat hoop; and it is confidently believed by the inventors of the Hoop Machine, and all whose opinions have been given, that it is destined to add from two to five per cent. to the immense quantities of flour packed in this State. The machine makes six in a minute, and they can be afforded as cheap as the flat ash hoop. These hoops were presented for examination at the State Fair at Syracuse, by D. S. Heffron, of Whitesboro, Oneida Co.

Challenge.

Rev. J. R. Smythies, a noted breeder of Hereford cattle, makes the following offer through the *Mark-Lane Express:*

I hereby offer to show four Hereford steers, whose ages shall not exceed two years and three months, and four whose ages shall not exceed one year and three months, at the next Smithfield Show in December, against eight shorthorns and eight Devons, of similar ages, for a sweepstakes of one hundred sovereigns for each lot; with this stipulation—that each lot shall have been bred by one man, and that they shall have lain at grass at least four months this summer, without having had anything but what they got there. But this is not all. I am willing to test their hardiness as a breeding stock, as well as their feeding properties. In order to do this, I propose to turn my two-year-old heifer, which gained the first prize at Norwich, into a pasture with the two-year-old shorthorn and two-year-old Devon heifer, which obtained the first prize in their respective classes, and let them remain there till the next meeting of the Royal English Agricultural Society at Exeter, next July, giving them nothing but what they can get, except a little hay from the 5th of November till the 5th of May; the heifers to be shown at Exeter for a sweepstakes of a hundred sovereigns each. But in case the owners of either of the heifers should object to the amount of the stake, I am ready to show them for nothing, if the society will consent to give a cup to the winner; and I do not know how they could lay out their money better, for this is a question of the utmost importance, and one that ought to be decided as early as possible, and can only be settled by the animals being brought into close contact in the way I propose. If any shorthorn or Devon breeder can point out a fairer way of testing their respective merits than the one I have proposed, I shall be ready to meet him in any way he likes. I am not nice to a shade how the experiment is tried, so that the animals are brought fairly into competition with each other. I hereby declare that I am ready at all times to produce Hereford beasts against any other breed in the United Kingdom, either as rearing or feeding stock, and to back my opinion.

Answers to Correspondents.

Work on Bees.—A. C. L., Fredericktown, Mo. Week's Manual contains much information which would be especially useful to a beginner in bee-keeping. A small work was published at Cincinnati several years ago, by Thos. Affleck, which we would recommend to your attention. Of larger works, Dr. Bevan's is much approved.

Ice-House.—S. M. N., New Marlborough, Mass. You will want an entrance to the ice-house from the outside, for convenience; but it may also be convenient to have an entrance connecting the ice-house with the cellar. The atmosphere of an ice-house is usually too damp to keep butter; a cool, dry room, perhaps adjoining an ice-house, would do better.

Barley for Feed.—The common two-rowed is usually most productive. There are several new kinds, as the Chevalier, the Black, &c., which have as yet been little tried here, but may prove profitable.

Common and Indian Buckwheat.—The Indian buckwheat is not saleable in market—it does not make palatable flour. As to the comparative value of the two kinds for *feed*, you can get the best idea by feeding a pig on one kind for a given time, then weighing the pig, and changing to the other kind for the same time, shifting, alternately, for a month, or longer.

Clay Soil.—O. J., Brewerton, Onondaga Co. Plow this soil as deep as practicable, in ridges, this fall. Drain off the water, by under-drains, and the soil will break down fine by the plow in spring.

American Silks—Mr. J. W. Gill, of Wheeling, Va. exhibited splendid specimens of various kinds of silk goods at the late show of the American Institute. They consisted of vestings, dress-silks, handkerchiefs, cravats, shirts and hose. Mr. G. has expended a large amount of money in the establishment of the silk business, and we were satisfied from what we saw of his operations several years since, that he would ultimately succeed. We are glad to learn that his returns afford a fair interest on the investment.

Notes for the Month.

Communications have been received, since our last, from Arthur S. Copeman, A Farmer's Daughter, D. H. W., Enquirer, Dean, An Observer, Aquarius, Edgar M. Woodford, A Farmer's Wife, S. M. Norton, A Farmer, H. V. L., Old Suffolk.

Books, Phamphlets, &c., have been received as follows:—Descriptive Catalogue of Garden Seeds, cultivated and sold at the Wethersfield Seed Garden, by Comstock, Ferre & Co.—The Scottish Ag. Journal for August—Report of the Commissioners of Patents for 1848, from Hon. Wm. L. Dayton, M. C.—A Basket of very fine Isabella Grapes, from Dr. Underhill, Croton Point.

"Northern Sweet" Apple.—We have received from Mr. J. Battey, of Keeseville, Clinton county, N. Y., a specimen of this apple. We think it is superior in quality to any other sweet apple we have ever seen. It is of good size and fine form. It ripens in October and continues into November. We understand it originated in Chittenden county, Vt.

Substance on a Pear.—Mr. J. S. Doane of Kinderhook, has left us a pear on which there is a substance having the appearance of a species of fungus, but which is in reality the eggs of an insect—the hemirobius. This insect, in its larvæ state, is called the "lion of the aphides," a name significant of its habit of subsisting on plant-lice. In its perfect state, it is a beautiful four-winged fly, whose body is a glossy green. It lays its eggs, commonly, on the leaves of plants, which are affected by the aphis, and the young "lions" commence their slaughter as soon as they are hatched. They are provided with sharp and strong forceps with which they seize and hold the aphides till they can suck their juices. The manner in which the eggs are deposited is curious. The egg is covered with a viscous matter, and being in part protruded, is applied by the insect to the leaf; and as the fly withdraws its abdomen, the viscid matter is drawn out in the form of a thread, leaving the egg on the end, about half an inch from the leaf.

Castor-Oil Bean.—A subscriber wishes information in regard to the cultivation of the castor-bean, and the processes necessary to fit the oil for market, the machinery required for pressing, &c. Will some one acquainted with the business give us an article on the subject?

Exemption of Trees from Blight—In a visit to Mount Ida Farm, Troy, the residence of Henry Vail, Esq., in August last, we were struck with the healthiness and vigor of all the trees and shrubs. No "fire-blight" has ever touched the pear trees here, and the place has become noted for the production of the finest gooseberries, always unblemished by mildew. What is the cause of this exemption? is the question which naturally arises. In answer to this we will state some of the circumstances belonging to the location. The place comprises about forty acres, embracing a large portion of the top of a somewhat isolated elevation, several hundred feet above the river; thus ensuring a very free circulation of air. The soil is a slaty loam, generally rather loose at the surface, with a subsoil sufficiently open to allow the ready filtration of water. It has been highly manured with stable manure, which has been thoroughly mixed with the soil. We would suggest that the deep stirring of the soil, with the action of the ammonia of the manure, may tend to develop potash and other mineral elements in the earth, which are required by the trees; while the freedom from stagnant water in the soil and subsoil, prevents the formation of acids, which are prejudicial to vegetation.

Mr. Vail is devoting much attention to the culture of choice fruits, and his success in all departments has been highly satisfactory. The location, besides possessing the advantages we have mentioned, is one of the most beautiful in the country, commanding a splendid view of the surrounding scenery.

Crops in North Carolina.—Mr. S J. Wheeler, of Murfreesborough, N. C., writes: "Our crops of corn and peas are unusually good. Cotton only ordinary. The late frosts in the spring destroyed nearly all the fruit. We have a few apples; no peaches; figs and trees all killed to the ground. Otaheitan mulberry trees that were set out this spring *are injured*, but those that were set out one or two years ago *are every one dead*. Can you account for this?"

Mules.—The only specimen of this very useful kind of farm-stock at the State Fair, was exhibited by Josiah Cloyes, of Morrisville, Madison county. They were a pair of muscular animals, nearly fifteen hands high. Mr. C. has used mules on his farm for several years, substituting their labor for that of horses to a great extent, and he states that he finds the profit greatly in favor of the mules. He states the cost of keeping at two-thirds that of horses, and the mules do the same amount of work, ordinarily, that is done by the same number of horses.

Spanish Cattle.—At the Cattle Show of the Massachusetts Society for promoting Agriculture, held at Brighton, in 1828, there were exhibited several fat cattle said to have been the progeny of a Spanish bull. They were generally well shaped animals, and according to the recollection of the writer, were approved by the butchers. We have since seen at the Worcester shows, stock said to be descended from the same bull. Will some of our friends in Worcester county give us the history of the stock alluded to? Where did it come from, and what were its qualities?

Fall Crops.—A large portion of the northern section of the country, embracing New England, a part of New Jersey, and a large part of New York, has been visited by a drouth of unusual severity. Excepting some light showers, of very limited extent, rain did not fall in sufficient quantity to sensibly benefit vegetation, from about the middle of June till the sixth of August. In the northern part of New York, in Vermont, and portions of New Hampshire and Maine, the drouth came on so early as to lessen the hay crop to the amount, in many places, of one-half. In other sections, the hay crop, so far as heard from, was good. Throughout a large portion of New York, the oat crop, is nearly ruined, and Indian corn will be cut short to a large amount; though we are unable to tell, at present, what may be the effect of the late favorable rains in resuscitating the corn and potatoes. Grass is already beginning to show the benefits of increased moisture, and the fall feed may compensate, in a good degree, for the deficiency of hay in some sections.

Quality of Milk.—We have often remarked that it is the quality of milk, rather than the quantity, which gives value to the dairy-cow. Great astonishment is sometimes produced by statements of the large quantity of milk yielded daily, by some cows. But such statements are of little consequence. The most remarkable cows for the production of butter, have given but medium quantities of milk. For instance, the celebrated Sussex, or Cramp cow, which for several years

made an average of 600 pounds of butter a year, gave, at the most, but twenty quarts per day; and the Oaks cow, which made 480 pounds of butter in a year, gave but sixteen to eighteen quarts per day. JOHN HOLBERT, of Chemung, N. Y., states that he has found, by churning the milk separately, that *one* of his *best* cows will make as much butter as *three* of his *poorest*—all giving an equal quantity of milk. He states, also, that 100 pounds of milk drawn from his cows which give the richest milk, will make one pound more butter than 100 pounds drawn from the whole herd; and he adds, that there is more difference in the quality than in the quantity. His advice in conclusion is, that all dairymen look well to the quality of milk their cows give.

SOUTH DOWN AND LEICESTER SHEEP.—The two most popular breeds of sheep in England are South Downs and Leicesters. C. HILLIARD, an experienced farmer and breeder, suggests to the Council of the Royal Agricultural Society, the propriety of offering a prize for sheep produced by a cross of these breeds. He uses the following arguments in favor of the proposition: "The South Downs do not come to sufficient weight of carcass in proportion to the quantity and value of the food consumed, and the Leicesters do not produce a sufficient quantity of lean meat to the fat. By an admixture of the two breeds—by putting a pure-bred South-Down ram to pure-bred Leicester ewes, I have, in the space of six years, established a breed that I find yield a better profit in feeding than either the South-Downs or Leicesters. The mutton is as fine as can be eaten, and the fleeces are of greater value than either South-Downs or Leicesters."

STAGE FOR CUTTING GRASS.—A writer on the scientific principles involved in the process of haymaking, lays down the following rules: 1. Grass must be fully developed before it is mown; if not, it will be found in its early stages to contain so much water as to be reduced, on drying, into so small a compass, that it will in quantity much disappoint the haymaker. 2. It must not be permitted to stand until its seeds are formed, much less ripe. All plants in arriving at maturity have their starch and sugar and gum in large quantities converted into woody fibre—a wise provision of Providence for enabling the stem to bear the matured seeds—and as sugar, gum and starch, are nutritive elements, it is desirable that these should be preserved, and hence the point for successful grass-cutting is that between the full development of the plant and before the formation of their seeds, in other words when they are in flower.

The proper drying and storing of hay should be strictly attended to. If it is put up with two much moisture in it, the fermentation is so violent that the hay is greatly injured in quality, and may be more or less consumed. But hay may be made too dry; for though a violent fermentation is to be avoided, a slight one is considered necessary to the full development of the best qualities of the grass; as there is little doubt that it is the vinous fermentation of the saccharine matter of the hay which renders it palatable to animals.

CHEESE FACTORIES.—In the Western Reserve, Ohio, where the making of cheese has been largely carried on for several years, a change of system has lately taken place to some extent. Certain men who are well acquainted with the manufacture of cheese, purchase the *curd*, unsalted, of their neighbors; and make it into that kind of cheese for which they find the readiest sale and best price. A single manufacturer sometimes uses the curd produced from the milk of several hundred cows. It is gathered every morning, by men who call at the different farms for that purpose. These large establishments are called "factories." The *Coneaut Reporter* notices some factories which it is stated use 3000 pounds of curd daily, making from twenty to thirty cheeses of from fifteen to thirty pounds weight each. Some of the cheese is sent to the English markets, some to the West Indies, and some to California.

LIVE STOCK AT AUCTION.—Attention is invited to the advertisement of Mr. BLAKESLEE, in this number.

TRANSMUTATION.—We have on hand several communications in reference to wheat changing to chess. While we desire to treat all our correspondents with civility, we do not think the publication of these articles would be generally interesting to our readers. We do not reject them because they express opinions contrary to our own, but because they throw no new light on the subject. All assume that because wheat failed to mature, more or less, where it was sown, and chess grew in its place, the wheat was transformed into chess! Now all we ask is the *proof* of this change. One correspondent says—"When I see wheat converted into chess, I must believe it." Aye, but does he *see* it? Does he absolutely know that the chess did not grow from chess? or did he "see" the miraculous conversion? We do not doubt the honesty of these statements—we admit that chess was found where wheat was sown—but we think the chess was produced, like every other plant, from seed of its own kind.

SHRUNK WHEAT.—The millers of Zanesville, Ohio, have published the following scale of prices, in view of the depreciated quality of wheat from rust, the present year:—

"Assuming that cleaned wheat, weighing 58, 59, and 60 pounds to the bushel, is worth 75 cents per bushel, wheat weighing

57	lbs.	would be worth	72	cents.
56	"	"	69	"
55	"	"	66	"
54	"	"	62	"
53	"	"	58	"
52	"	"	53	"
51	"	"	48	"
50	"	"	42	"

For *white wheat*, 10 per cent additional on the above prices." Below 54 lbs. per bushel, superfine flour cannot be made, whence the rapidly diminished prices.

THE ARMY WORM.—The Michigan Farmer states that twelve miles from Port Huron, on Black River, whole fields have lost their entire crops by the enormous numbers of these worms in their march from place to place, and that one tenant was actually driven from his house by the swarms which obtained possession.

CHEAP CROP OF SWEET POTATOES.—The Southern Cultivator contains a statement of Aaron Adkins, who raised 307 bushels of sweet potatoes—excellent food for cows at the South—on an acre of land, at a cost of about ten dollars, or about three cents per bushel. The potatoes, cut three inches long, were dropped into deep furrows three and a half feet apart, and a foot and a half apart in the furrow. They were covered with a plow; not hilled, nor hoed, but repeatedly cultivated with a shovel-plow, throwing the vines, when they became long, on one side, for one furrow, and on the other side for the next furrow. A small plow was used near the rows, and a larger one in the middle. They were plowed up out of the ground when harvested.

PLENTY OF ROOM.—According to the estimates of the General Land Office, the whole United States empire measures about two thousand million acres. If one half should be waste lands and forests, there would still be a thousand million acres. Intelli-

gent agriculturists believe that each acre, under good management, will easily support its man, and if so, then the United States would support the whole of the present population of the globe.

PLUMS.—Several new plums have lately originated in this neighborhood, some of which will probably be found deserving propagation, as they possess qualities which are not common. We shall only notice a few at the present time, leaving others to be examined and decided on hereafter. One is in the garden of Messrs. E. & E. DORR, of this city. The tree has borne two seasons, and was so much overloaded the present season, that the size of the fruit was somewhat diminished, and its quality injured. It is a beautiful plum, of the yellow class, with a thick bloom, and a deep blush on the upper side. Its shape resembles Coe's Golden Drop, and it is about the size of Bleecker's Gage. Its quality is nearly first-rate. It begins to ripen about the tenth of September, and it continued this season till the middle of October.

Another fine new plum has appeared in the noted plum-garden of Mr. ISAAC DENNISTON, of this city. The tree bore for the first time in 1847, and we noticed the fruit in the Cultivator for November of that year. Mr. D. has since given it the name of *Madison*. It proves to be even later in ripening than we stated in our former notice. It may be said to be in perfection at the present time—October 16th—though there is still a large proportion on the tree. In shape and size it resembles the Imperial Gage, but its general color is lighter, and it is generally mottled or covered on its upper side with bright crimson. All who have tasted it pronounce it first-rate—nearly equalling the Green Gage—of which it is probably a seedling.

ABSORPTION OF RAIN.—It is believed that if soils were sufficiently deep and fertile, nearly or quite all the water which falls would be needed, and but little would run off in streams. Hence, streams are found to diminish as population and improvement advances. It has been found that fifty-five or fifty-six inches of water falls annually at Natchez; and if forty-five inches be taken as the average for the whole Mississippi Valley, which is evidently within bounds, it will give an amount falling on the whole valley, ten times greater than the water discharged at the mouth of the river.

TO PREVENT HORSES RUNNING OFF.—When the Icelanders ride two or more together on horseback, and wish to dismount and leave their horses for any length of time, they tie the head of one horse to the tail of the other, and the head of the second to the tail of the former. In this reversed condition they can make no progress, and if they move at all they can only go in a circle.

WATERMELONS AFTER TOMATOES.—Prof. TURNER writing to the *Horticulturist*, says—" My watermelons planted where tomatoes had grown two seasons before, are of twice the size and vigor of growth of those grown in the same way and on the same soil, side by side." He asks, " Is this a general result?"

DURABILITY OF RED CEDAR.—We have heard of an old farmer, who, when asked how he knew that Cedar posts would " last forever," said he had frequently tried the experiment. Some may doubt his assertion, yet its lasting powers have been found to exceed a long life-time. At the head of one of the graves in " Old St. Mary's," Md., there stands a cedar slab, which, as the inscription indicates, was placed there in 1717, and is still perfectly sound.

Prices of Agricultural Products.

New-York, Oct. 16, 1849.

FLOUR—Genesee, per bbl., $5.18a$5.25—Favorite western, $5.12½a$5.18—Fancy brands, $5.31a$6.25.

GRAIN—Wheat, Genesee, per bush., $1.21a$1 22—Red Missouri, $1.05—Corn, Western and Southern Yellow, 63½a65c.—Rye, 59½a60c.—Barley, 58½a61c.—Oats, 38a40c.

BUTTER—best, per lb., wholesale, 18a19c.—western dairy, 15a17c.

CHEESE—per lb., 6a6½c.

BEEF—Mess, new, per bbl., $10a$10.50—Prime, $7a$8 Old Mess. $11.50

PORK—Mess, per bbl., $10.50—Prime, $8.50a$8.69.

LARD—per lb., 6½c.

HAMS—Smoked, per lb., non-pickled, 6a6½c.

HOPS—per lb., first sort, new, 12½a13c.

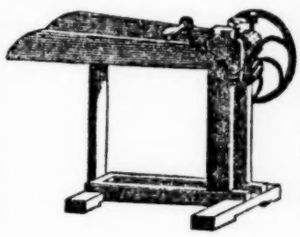
COTTON—Upland and Florida, per lb., 9½a11¾c.—New Orleans and Alabama, 9½a12c.

WOOL—(Boston prices.)

Prime or Saxon fleeces, per lb.,	40a43c.
American full blood Merino,	35a37c.
" half blood do.,	30a32c.
" one-fourth blood and common,	27a29c.

REMARKS.—The cotton market is buoyant. Western and State flour is very heavy—the demand mostly for the home trade. There is a fair trade in grain at quotations. Beef and pork are in better demand, though chiefly for the home market.

Hay Cutters, Corn Shellers & Vegetable Cutters.

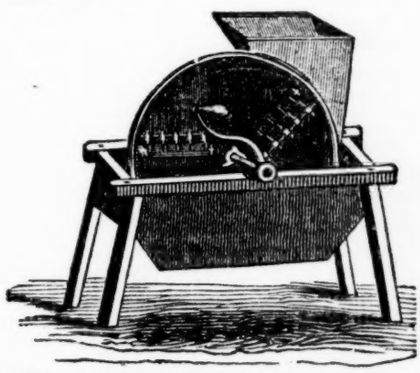


SPIRAL and Straight Knife and Gate Hay Cutters of Stevens, Ruggles, Nourse & Mason's, Hovey's and Rich's both for Hand and Horse Power. Also, Corn Stalk Cutters, for cutting, crushing, and making fine feed.

All the above are offered at the manufacturers' home prices, at wholesale and retail

CLINTON'S hand double and single hopper shellers. Smith's Patent cylinder power Corn shellers.

The above are warranted to be the best in use, and are afforded at the lowest prices.



Ruggles, Nourse & Mason's Vegetable Cutters. The best made in this country, and has three times received the first premium of the State Agricultural Society.

A large and general assortment of Implements of Husbandry—embracing every article required about the farm. Also, a good assortment of Grass, Grain, Field, Garden Seeds, &c., &c., constantly on hand at the Albany Agricultural Warehouse & Seed Store, Nos. 369 and 371 Broadway, Albany, N. Y.

Nov. 1. HORACE L. EMERY.

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"THE CULTIVATOR" AND "THE HORTICULTURIST."

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☞ All orders to come free of postage and to be accompanied with the money for the numbers ordered

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Bristol—Geo. H. Mitchell
Bridgeport—P. F. Barnum
Barkhamsted—Salmon Howd
Colchester—Guy Bigelow
Chapinville—P. L. Barton
Canton—John Case
Canton Centre—L. B. Case
Collinsville—T. H. Austin
Canaan—Wm. Watson
Columbia—J. S. Yeomans
Central Village—Chas. Hinckley
Cornwall—E. W. Andrews
Chester—C. D. Clarke
Danbury—E. M. White
East Haddam—O. H. Parker
East Windsor—H. Watson
East Windsor Hill—J. H. Charlton
Enfield—John Purdon
Falls Village—H. Ames
Gales Ferry—N. B. Brown
Gaylord's Bridge—D. Giddings
Goshen—M. Bartholomew
Greenwich—Sam'l. Close
Greenville—Fred. T. Hayfield
Harwinton—A. N. Barber & Co.
Hartford—Olmsted, Thatcher & Goodrich

Hadlyme—Wm. Spencer
Huntington—N. W. Blackman
Hamburgh—Sam. M. Brockway
Humphreysville—J. Nettleton
Hotchkissville—Wm. Dawson
Killingworth—L. Parmelee
Kent—R. Fuller, Jr.
Kensington—Samuel Hart
Litchfield—Wm. H. Thompson
Lyme—H. M. Waite
Lakeville—John G. Mitchell
Mystic Bridge—Jos. Griswold
Mansfield Centre—Z. W. Phelps
Middle Haddam—G. Whitmore
Middletown—D. Barnes
Moodus—Z. L. Hungerford
Newington—R. Stoddard
Norwichtown—H. B. Tracey
North Madison—H. S. Blatchley
Norfolk—N. B. Smith
New Preston—G. B. Waller
New Fairfield—M. Tredwell
New Milford—Wm. Wanzer
North Lyme—N. Jewett
New Canaan—Chas. Raymond
New Britain—H. Brown
North Mansfield—Fred. A. Metcalf
New Haven—F. Trowbridge
Poquonock—C. Soper
Plymouth—W. W. Bull
Ridgefield—Steph. Smith
Reading Ridge—M. Hill
South Killingley—D. Brown
Sharon—D. R. Gould.
Sherman—A. Wanzer
Stratford—D. Brooks
South Windsor—R. Olcott
Simsbury—L. Buel
South Britain—D. Platt
Salisbury—A. Moore
South Norwalk—H. Pennoyer
Suffield—D. Hale, Jr.
Stanwich—J. T. Reynolds
Stamford—R. Hoyt
South Coventry—W. G. Judd
Thompson—Wm. H. Chandler
Torringford—N. Smith
Tolland—P. Walbridge
Thompsonville—Jas. Henderson
Terryville—J. W. Hemingway
Vernon—S. F. Bunce
Voluntown—H. Gallup
Washington—Wm. Moody
Waterbury—E. Leavenworth
Warehouse Point—G. Booth
West Hartland—N. Bosworth
Wilton—J. P. Fitch
Woolcottville—C. B. Smith
Watertown—M. Heminway
Warren—Wm. E. Tanner
Willimantic—A. D. Loring
West Cornwall—H. M. Hart
Windsor—S. O. Loomis
Willington—John Western
Woodbury—S. B. Minor
Windham—Thos. C. Robbins
Winchester—S. W. Coe
Westport—Wm. H. Burr
Winchester Centre—H. Ford
West Meriden—R. Linsley
Winthrop—John Denniston

CANADA WEST.

Alexandria—A. Chesholm
Brockville—Chas. Booth
do W. B. McLean
Beverly—S. J. Southworth
Caledonia Springs—P. Sterling
Clarence—Wm. Edwards
Colchester—Thos. Hawkins
Cornwall—M. McMartin
Dunnville—Wm. Inman
Etobicoke—J. B. Bagwell
Fitzroy Harbor—W. P. Taylor
Farmersville—P. Wing
Goderich—Geo. Brown, Jr.
Galt—W. Roseburgh
Guelph—H. Parsons
Kingston—Thos. Briggs, Jr.
Kitley—John Flakely
L'Original—Chas. P. Treadwell
Mill Creek—Wm. Perry
Morwin—Dan'l W. Perry
Merrickville—C. Miner
Martintown—Jas. Begg
Nanticoke—Sam'l. Gamble
Oxford—Chas. E. Chadwick
Picton—Wm. Low
Port Hope—D. Smart
Perth—John G. Malloch
St. Catharines—C. Beadle
St. Andrews—Major McDonald
Simcoe—Henry Groff
Wellington Square—J. P. Gage
Williamstown—John McGillis
Waterloo—H. Robinson

CANADA EAST.

Adolphustown—Thos. Casey
Besancour—C. Simmons
Cold Brook—H. S. Foster
Chethem—Rev. F. Metcalf
Danville—Wm. M. Byrd
Drummondsville—Hon. William Sheppard
Durham—John Bothwell
Grantham—Hon. R. N. Watts
Henryville—E. S. Goodnow
Huntington—M. F. Demming
Kingsey—Dan'l. Moore
Lochaber—A. Holmes
Montreal—Robt. W. Lay
Murray Bay—J. Narin
Melbourne—F. Labrash
Petite Nation—Steph. Tucker
Quebec—John H. Wyse
River David—J. Wurtele
Richmond—Levi Cleveland
St. Thomas—Wm. Patten

NEW BRUNSWICK.

Fredericton—John H. Reid
St. Andrews—Jos. Walton
St. John—S. L. Tilley
Woodstock—Chas. Perley

NOVA SCOTIA.

Cornwallis—C. C. Hamilton
Halifax—C. H. Belcher

NEW YORK.

Auriesville—R. Hudson
Alder Creek—Dr. P. Williams
Aurora—Jno. L. Cuyler
Avon—O. Sackett
Angelica—L. Hull
Auburn—Derby, Miller & Co.
Adamsville—A. Wiltse
Augusta—W. Brown
Argosville—R. V. S. Ramsay
Amenia—E. D. Freeman
Amenia Union—N. Reed
Adriance—P. Adriance
Arthursburgh—E. S. Barber
Alexandria Centre—Geo. Wills
Ashford—John Quackenbush
Adams—George Hart
Ames—Chas. G. Robinson
Athens—D. Von Wie
Allen Centre—N. J. Rice
Astoria—Thos. B. Jackson
Attlebury—Sam'l Huntington
Amsterdam—R. Davis
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Alden—L. Putnam
Apulia—W. W. Sterling
Burns—O. Benton
Bridghampton—E. Rose
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Butternuts—R H. Van Rensselaer
Binghampton—R. S. Bartlett
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Ballston—E. W. Lee
Busti—Geo. Edwards
Big Stream Point—I. Hildreth
Brockport—G. W. Spencer
Bouckville—J. Coolidge
Babcock Hill—J. H. Champion
Buel—N. Y. Vrooman
Brockett's Bridge—L. Brockett
Borodino—J. Learned
Bridgewater—G. Scott
Bloomingburgh—R. H. Drake
Beekmanville—E. Haxton
Berlin—Jas. B. Murray
Berkshire—G. Cargill
Baiting Hollow—M. Howell
Burnt Hills—C. Hollister
Blooming Grove—H. F. Breed
Burke—T. Beeman
Baldwinsville—R. Sears
Bemis Heights—Wm. Denison
Black River—Wm. Middleton
Bullville—S. Gillespie
Burdett—R. Burritt
Burlington—C. Reed
Bernville—S. St. John
Bramans Corners—R. Howe
Broadalbin—C. C. Brockway
Bainbridge—D. Newell
Bern—Wm. L. Turner
Brewerton—Orson Ives
Canastota—N. S. Roberts
Champlain—D. D. T. Moore
Clockville—C. Palmer
Chazy—J. W. Hubbell
Canandaigua—Henry Chapin
do O. Phelps
Catskill—W. W. Van Loan
Chatham Centre—R. H. Vedder
Cayuga—H. Powis
Conesville—E. Hammond
Cortlandville—J. L. Hommedieu
Cazenovia—S. H. Henry
Cooperstown—Robt. Davis
Chatham 4 Corners—S. Crandall
Covert—A. Hopkins
Canaan Centre—D. S. Curtis
Canisteo—Wm. H. Mead
Cincinnatus—O. Kingman
Columbia—H. Reynolds
Cape Vincent—S. W. Ainsworth
Corning—Joel Parcell
Chief Warrior—C. T. Carrier
Cambridge—Jno. M. Stevenson
Canaan 4 Corners—W. A. Lord
Chesnut Ridge—J. C Haviland
Chester—S. Y. Satterly
Clarkson—M. A. Patterson
City—C. Chamberlain
Cedarville—S. Brainerd
Crum Elbow—John Lamore
Clyde—J. D. Stone
Chapelsburgh—Wm Miller
Conewango—Levi Steel
Centre Cambridge—S. Clawson
Clinton—Chas. Northrop
Campbellsville—Wm. Aiken
Canajoharie—Wm. Arkell
Cuyutaville—A. Lawrence
Coxsackie—A. Van Bergen
Clifton Park—J. Usher
Claverack—J. J. Studley
Castile—John M. Chase
Copake—H. A. Bain
Crown Point—H. Stines
Canaan—E. Cady
Carthage—Wm. Blodgett
Cranesville—Wm. Shuler
Clay—Geo. White
Cannonsville—W. McGibbon, Jr.
Cairo—S. Shufelt
Cohoes—Thos. Hart
Carmel—Thos. W. Taylor
Canterbury—H. F. Chadeayne
Canton—N. S. Prentice
Clayton—A. Ellis
Clarence—W. B. Ransom
Cicero—A. Eastwood
Coventry—G. D. Phillips
Conklin—D. M. Langdon
Chatham—Wm. A. Case
Chittenango—S. Fuller
Catharine—J. Thompson
Coldenham—R. Howell
Cortland Village—Jos. Reynolds
Cherry Valley—T. Lewis
Caroline—J. R. Speed
Colchester—Robt. Campbell
Coeyman's—J. Skinner
Dexter—J. A. Bell
Delhi—J. McCulloch
Danube—L. Green
Deansville—J. Brown
Durham—A. Marks
Dryden—A. Tanner
Deer River—E. L. Hurlbert
De Ruyter—E. L. Gage
Davenport—John McMorris
Deans Corners—H. W. Devins
Duanesburgh—H. P. Allen
Devereaux—W. O. Gaines
East Hamilton—C. R. Ackley
Eaton—C. Morse
East Springfield—C. C. Genter
East Avon—S. S. Morehouse
Earlville—N. Phelt
East Bloomfield—E. M. Bradley
Ellenville—D. Hardenburgh
East Lexington—John Egbertson
Exeter Centre—Jas. Smith
Easthampton—Thos. F. Parsons
Ellicottville—D. R. Wheeler
Easton—E. Mosher
East Homer—Hough & Klock
Evansville—C. W. Candee
East Groveland—R. Johnson
Elizabethtown—Asa H. Post
East Schuyler—James Minott
Elbridge—C. M. Brown
Eagle Mills—E. L. Roberts
East Peru—T. Beardsley
Edinburgh—M. Pearl
Edwardsville—E. S. Pope
East Greenbush—S. Miller
East Glenville—E. Westfall
East Greenwich—P. F. Martin
East Guilford—M. G. Osborn
Edwards—Jas. Brodie
Edenhill—Wm. H. Tune
Elba—J. Strickland
Fenner—D. Haight
Flushing—F. Bloodgood
Fayetteville—J. H. Smith
Fredonia—D. Douglass
Fort Plain—A. Cary
Five Corners—S. E. Todd
Fort Hamilton—T. G. Bergen
Flatbush—R. L. Schoonmaker
Fulton—H. L. R. Sanford
Flat Brook—C. Belding
Fonda—Jas. McIntyre
Freys Bush—John Diefendorf
Fishkill Village—Jacob Pudney
Frewsburg—J. Townsend
Friendship—Sam'l. Townsend
Farmingdale—Abm. Lawrence
Fort Covington—C. B. Howard
Franklinville—John Johnson
Fishkill—W. B. Blackman
Fort Ann—Geo. Clements
Farmer—J. D. Winterstein
Fowlerville—A. McBean
Fortsville—H. Griswold
Franklin—Jas. Hardy
Felts Mills—A. Wheelock
Fishkill Plains—D. Van Wyck
Farmington—J. C. Hathaway
Fishkill Landing—J. Van Voorhies
Fort Miller—L. G. Taylor
Flat Creek—Jos. Dillenback
Fort Edward—G. Lathrop
Freedom—James Griffith
Freedom Plains—Jas. H. Pettit
Geneseo—Wm. H. Spencer
Guilderland—Joel B. Nott
Geneva—Derby, Wood & Co
Gardnersville—Benj. Jackson
Granville—J. Thompson
Gravesend—S. G. Stryker
Gilbertsville—Chas. Root
Glen Cove—R. M. Bowne
Greece—J. B. Penynsford
Greene—S. S. Nichols
Greenville—B. Halleck
Greenfield Centre—H. Gardner
Garrattsville—G. Harrington
Great Bend—J. Whitaker
Great Valley—W. J. Nelson
Greenwich—Eddy & Co
Galway—E. O. Smith
Guilford Centre—John P. Hall
Glens Falls—E. H. Rosekrans
Gay Head—D. Vermilyea
Glenville—P. C. Conde
Galesville—J. Hall
Greenport—Fred. W. Lord
Gilbert's Mills—H. Allen
Glenham—J. H. & W. Cromwell
Ghent—W. F. Collins
Gerry—Wm. W. Sterling
Gilboa—John Reed
Hamilton—Fay & Riddell
Herkimer—Jas. D. Spinner
Hyde Park—E. Butler
Hudson—P. D. Carrique
Harford—J. H. Heaton
Hallsville—J. Bander
Holland Patent—C. W. Kellogg
Hurley—P. Crispell, Jr.
Hoosick—R. James
Henrietta—E. Kirby
Hartsville—P. Van Vradenburgh
Hartwick—C. Harrington
Harpersfield—R. B. Gibbs
Hamptonburgh—A. B. Watkins, Jr.
Hunts Hollow—T. I. Lake
Hempstead—S. C. Snedecker
Homer—Amos Rice
Hannibal—C. D. Bent
Hobart—P. Kirkpatrick
Hillsdale—J. W. White
Higginsville—John F. Porter
Hammond—A. A. Hine
Huntington—S. C. Rogers
Hartford—Sam'l Hall
Hampton—W. Egery
Hoffman's Ferry—J. M. Swart
Hermon—M. Lawrence
Hastings—J. O. Dyckman
Hull's Mills—John Thompson
Hammondsport—A. M. Adsit
Holley—D. S. Ross
Hoosic Falls—L. C. Ball

Heuvelton—J. & G. Shull
Ithaca—A. S. Johnson
Ilion—L. Helmer
Junction—I. T. Grant
Johnstown—James Wells
Jordanville—Wm. B. Mix
Jonesville—R. R. Kennedy
Jamaica—Philo Doane
Jordan—Geo. A. Mason
Jacks Reef—P. Drake
Jericho—A. G. Carll
Jamestown—H. Baker
Kingsbury—Chas. Cole
Kinderhook—J. C. Sweet
Kings Ferry—M. Hutchinson
Kennedysville—Z. Bradley
Kelloggsville—Wm. Slade
Kingston—John C. Jansen
Knowlesville—Wm. F. Potter
Keeseville—Willets Keese
Kendall—Wm. K. Watson
Kortwright—Jas. McKee
Kinneys 4 Corners—A. Kellogg
Lebanon—S. A. Gates
Leroy—B. W. Hand
Lowville & Lewis County—Hiram Mills
Lockport—Jas. W. Reed
Lansingburgh—Orville Reed
Leedsville—Geo. H. Swift
Lima—Geo. W. Warner
Lodi—C. W. Ingersoll
Lafargeville—John N. Rottiers
Lithgow—A. R. Adams
Leonardsville—Luke Hoxie
Little Falls—Z. B. Wakeman
Leeds—James Van Deusen
Little York—P. Walrod
Le Raysville—O Hicks
Livingstonville—H. Mather
Lewiston—A. V. E. Hotchkiss
Lee—D. Brown
Lysander—N. Hart
Livonia—C. C. Purdy
Livingston—H. A. Dubois
Liberty—L. Smith
Morrisville—A. Williams
Mabbettsville—J. R. Comstock
Macedon—John J. Thomas
Mount Morris—J. R. Murray, Jr
Maltaville—G. Burtis
Mottville—H. Delano
Mohawk—James D. Spinner
Moira—C. Lawrence
Mayville—R. Whiteside
Moscow—H. Jones
Madison—L. W. Curtis
Manorville—Jas. Kent
Mecklenburg—D. B. Wheeler
Middlefield—S. W. Barnum
Middle Granville—G. W. Porter
Marshall—E. Trowbridge
Meredith—S. A. Law
Middle Hope—E. S. Woolsey
Manhassett—Wm. J. Mott
Mechanicsville—Wm. Vernon
Malden Bridge—H. Van Valkenburgh
Mount Upton—O. Richmond
Manheim—John Joyce
Moriah—A. Chapman
Manchester Bridge—J. C. Cornell
Machias—W. Sanford
Mansfield—L. B. Eddy
Marathon—Eben Moore
Mamoreneck—John J. Marshall
Mina—Wm. Mayborn
Middleville—Geo. W. Griswold
Manchester—Wm. Wells
Massena—W. S. Paddock
Manlius—R. Gilmore
Martinsburgh—C. Whittaker
Morristown—M. Eager
Minaville—Samuel C. Jackson
Moresville—J. L. More
Middlefield Centre—G. White
Moores—C. W. Seaton
Middleburgh—Geo. Manning
Morley—O. Child
Medina—Gen. S. M. Burroughs
Moriches—J. M. Fanning
Maryland—A. Whitney
Marlboro—M. J. Fletcher
Moravia—John Alsop
Moriah 4 Corners—Wm. Heaton
Malone—J. W. Pangburn
Montgomery—B. Monroe
Mexico—James Emery
Middletown—John Book
Monticello—J. Huntington
Marbletown—Louis Bevier
Mount Vision—H. Show
North Brookfield—Jos. Eaton
Norwich—A. Lamb, Jr.
New Lebanon—Jonathan Wood
New Lebanon Centre—J. B. Churchill
North Duanesburgh—J. Donnan
Niagara Falls—Gen. P. Whitney
Newburgh—Daniel Smith
North Chili—E. Howell
New Utrecht—Rev. R. O. Currie
North East Centre—J. F. Caulkins
North Hempstead—A. Hicks
North Easton—R. S. Borden
Norway—W. H. Smalley
New Concord—H. B. Pratt
North Salem—Major Jas. Scott
North Lansing—R. Beardsley
Newport—L. B. Benchley
New Rochelle—J. P. Huntington
New Hamburgh—H. Suydam
North East—Samuel E. Russell
North Stephentown—E. Arnold
Newark Valley—R. A. Tappan
New Baltimore—J. K. Hotaling
North Side Staten Island—Wm. Bement
New Hurley—H. Traphagen
Nassau—B. H. Lord
Newville—G. Green
Newark—A. H. Robinson
New Lebanon Springs—S P. Goodrich
New Road—A. White
North Granville—A. Willett
Nashville—A. S. Moss
Niverville—Geo. L. Doane
New Hartford—C. Ingalls
Nelson—J. Donaldson
North Sterling—John Ostrander
North Hebron—A. A. Eggleston
Nunda—J. Swain.
New Berlin—John T. White
North Harpersfield—Wm. Harper
North Adams—S. D. Mack
Nichols—C. V S. Bliven
New Haven—A. W. Hewit
Oswego—J. M. Hart & Co.
Ogdensburgh—A. Gilmore, Jr.
Owego—Geo. Leonard
Orangeport—C. Butler
Oriskany—D. C. Balis
Otego—T. R. Austin
Oriskany Falls—C. Waterman
Oak Hill—A. Pratt
Oxford—H Balcom.
do S. H. Covill
Oakfield—E. Buell
Oneida Castle—Ira S. Hitchcock
Oppenheim—N. Brown
Port Jervis—P. B. Elting
Peteboro—D. Anderson
Prattsburgh—A. McMichael
Plattsburgh—E. Benedict
Poughkeepsie—A. Ostrander
Potsdam—A. V. Ellis
Palmyra—Wm. H. Cuyler
Penn Yan—H. B. Bennett
Pine Plains—John A. Thompson
Parishville—R. Meed
Port Henry—John Stevenson
Perry Centre—A. S. Patterson
Port Chester—Jos Carpenter
Peru—Wm. A Keese
Palatine Church—D. Smith
Peekskill—John Moore
Pittstown—J. Campbell
Pleasant Valley—Dan. J. Ward
Pawlings—J. Akin
Pamelia 4 Corners—C. Golding
Plessis—P. Bacon
Perry—S. Armstrong
Pine—Wm. H. Bloss
Pleasant Plains—P. D. Cookingham
Perrysburgh—H. M. Allen
Port Kent—W. Watson
Paris—J. Munson
Poland Centre—W. S. Gaylord
Pound Ridge—A. H. Lockwood
Perch River—C. Walrath
Parma Centre—C. A. Knox
Pine Bush—C. J. Deyo
Pleasantville—J. G. Haviland
Parish—B G. Flannegan
Port Jackson—C. Phillips
Putnam—John Simpson
Philadelphia—C. Child
Pompey—Wm. J. Curtis
Petersburgh—J. S. Coon
Port Crane—Jos. Smethurst
Quaker Hill—Ed. Merritt
Rochester—D. M. Dewey
Rhinebeck—Wm. B. Platt
Red Hook—Postmaster
Rome—O. D. Grosvenor & Co.
Rensselaerville—R. L. Mulford
Royalton Centre—Jas. Culver
Reynales Basin—D. D. Williams
Rexford Flats—John Smalley
Rutland—M. Eames
Rouses Point—John Bratt
Richfield—J. D. Vaughan
Richfield Springs—O. C. Chamberlain
Richmond—John Johnson
Richland—Chas. H. Cross
Red Creek—A V. Cortright
Royalton—James Culver
Raymertown—N. Van Namee
Rock Stream—P. McKey
Rushville—P. Vorce
Russia—Thos Johnson
Rossie—P. Butterfield
Ransomville—E G. Harris
Roseboom—L. Dickinson
Shelby—John Travis
Stuyvesant—B. Van Buren
Silver Creek—D. G. Smith
South Hammond—Jas. Lambie
Saugerties—H. Winans
Schodack Landing—P. G. Ten Eyck
Schenectady—George Clare
Springfield—Postmaster
Sackett's Harbor—F. F. Burt
Syracuse—Stoddard & Babcock
do L. W. Hall
do W. L. Palmer
Saratoga Springs—Jos. Wood
Salem—John King
do Woodin & Osborn
Sing Sing—Postmaster
Split Rock—James Fortune
South Westerlo—L. Stanton
South Granville—C. Taylor
Schuylerville—G. S. Brisbin
South Salem—H. Keeler
Southeast—E Foster
South Easton—F. D. Beadle
South Amenia—W Parsons
Seneca Falls—S. Chapin
Sidney Centre—S. L. Wattles
Stone Arabia—C. P. Snell
Scholarie—A Gallup
Sheldrake—J B. Barry
Sangerfield—A. Carter
Sauquoit—D. Durham
Stillwater—R. Merchant
South Hartford—S. Cooley
Schuyler Lake—C V. Hartshorn
Smyrna—J. W. Collins
Salt Point—D Griffin
Stanfordville—M. J. Miller
Shawangunk—P. V. C. Miller
South New Berlin—A Simons
Sherwoods Corners—Aug. Howland
Scriba—Thos Askew
Salem X Roads—N. Fay
South Stephentown—N. Gould
Schaghticoke—E. Congdon
Salt Springville—W. Dievendorf
St. Johnsville—Thos. Countryman
South Royalton—E Safford
South Middletown—W. Hoyt
Sand Lake—C. Sliter
Sprout Creek—John C. Shearer
Stormville—B. Hopkins
Shultsville—S. J. Gildersleeve
Spencer's Corner—W. Wakeman
Salisbury Mills—D. R Gill
Sandy Hill—S. R. Platt
Spencertown—Wm. Bailey
Stockbridge—L Moore
South Cairo—E. Blackman
Southampton—Capt S. Foster
Speedsville—J. C Bush
Sterling Centre—Hugh Crockett
Shrub Oak—L. Purdy
Salsbury—E. W. Carryl
Spafford—J. Gale
South Richland—J. L Dickinson
Stephentown—N. Howard
Salisbury Centre—A. C. Hopson
Shingle Creek—C Losee
Salisbury Mills—A. J. Caldwell
Somerset—Ed. Burchell
South Kortright—John McMinn
Somers—James Bedell
Shelter Island—Samuel S. Gardinier
Sandford's Corners—Amos Carpenter
Susquehannah—G. L Doolittle
South Columbia—E. Hatch
South Lodi—John Ingersoll
Stratton's Falls—D. T. Beers
Ticonderoga—Wm. E. Calkins
Trumansburg—James McLallen
Troy—Levi Willard
do Wm. McKinney
Trenton—E. Storrs
Trenton Falls—M. Moore
Taberg—B. G. Bloss
Truxton—Moses Kinney
Three Mile Bay—Sam'l Bates
Towners—J. Towners
Triangle—W. Jackson
Theresa—Geo. W. Woodruff
Turin—A. Foster
The Purchase—John Burling
Tarrytown—Wm. Stevens
Tyre—J. Smith
Utica—Wm. Bristol
do D. Redmond
Union Mills—F. Veeder
Upper Red Hook—J. Rowley
Unadilla—S. G. Cone
Union Centre—Alva Ketcham
Vernon—James H. Dunbar
Vernon Centre—H. Sanderson
Verbank—Chas. Coffin
Valatie—John H. Isbister
Versailles—A. H Barber
Volney—E. Griffin
Van Buren—J. Talmage
Verona—H. N. Leet
Varysburgh—E. P. Beck
Waterloo—S. Williams
Waddington—Wm. Tomlinson
Watervliet—T. C. Abrahams
Waterville—Jas. M. Tower
West Dresden—S. B. Buckley
Watertown—Ed. S. Massey
Westport—R. R. Stephenson
Wheatland—John Murdock
West Milton—H. Van Ostrand
Wheeler—Gen O. F. Marshall
West Point—Rich D. Arden
West Bloomfield—Thos R. Peck
West Farms—A W Clason
Westfield—E. C. Bliss
West Somers—Wm. B Ferris
Weedsport—O. Sheldon
Washington—S. Haight
West Galway—George Ainslie
Washington Hollow—C. Ham
Westerlo—A. H. Ford
West Almond—Lot J. Wyse
Whitney's Point—P. Greene
Westmoreland—A. H. Halleck
West Springfield—A. Chamberlain
Warren—H. Taylor
Windham Centre—P Lewis
Walton—P Townsend
Waterford—D B. King
Willett—R Greene
Wilton—C Perry
Windfall—D. Preston
Wright's Corners—H. Hale
Wappingers Creek—J. Ingham
West Stockholm—G. A. Hanchet
West Charlton—F. McMartin
West Chester—S. B. Bowne
White Creek—H Smith
Wilson—Wm Hamblin
West Troy—John Haswell
West Winfield—L. A. Guild
White Plains—J. R Sherwood
Windsor—D. Doolittle
Walworth—T. G Yeomans
Wilna—Z. Penniman
West Leyden—A. Fox
White Store—N. N. Greene
Warwick—Jos B. Burroughs
Willink—John W. Hamlin
West Hebron—John Beveridge
Youngstown—Wm. Little
Yaphank—W. J. Weeks
Yonkers—E. A. Bashford
Yorkshire—M. Smith

To Nurserymen, Orchardists and Gardeners.

THE subscriber offers for sale at his nurseries, at Plymouth, Mass., Pear, Quince, Cherry, Plum, Apple, Paradise and Mahaleb stocks, suitable for grafting in the Spring, and for budding the coming season. Mountain Ash, Elm, Spanish Chestnut, Ash, Maple, Lime, Alder, Larch, Scotch fir, Silver fir, Norway fir, Arbar Vitæ, Balsam fir, from 1 to 4 feet; Cedar of Lebanon, Araucaria imbricata, Deodar cedar, Oaks, Althæas, Hawthorns, Lilacs, Spiræas, Syringas, Deutzias, Acacias, Roses, Honeysuckles, Climbers &c. Raspberries, May's Victoria and other currants, Gooseberries, Native grapes, Foreign grapes in lots for vineries. Myatt's Victoria, Early Scarlet, and other rhubarbs. The best native and foreign *Pears*, 1 to 5 years from the bud, fine thrifty trees and well grown. 40 Select named Verbenas, all of Beck's Pelargoniums, in 23 varieties, including those of last season, being the finest Pelargoniums ever introduced.

Priced Catalogues sent on application.

Sept. 1, 1849.—3t. B. M. WATSON.

To Wool Growers, and those wishing to purchase Merino Sheep.

FOR SALE, low, about 175 Merino Ewes. The original stock were obtained of J. T. Rich, of Shoreham, Vermont, and Messrs D. & C. B Cook, of Charlotte, Vt.—the latter gentlemen having recently obtained theirs from Mr. Atwood's and other celebrated flocks in Connecticut. The lambs and yearlings are from Atwood's and Rambouillet Bucks. Also, about sixty bucks of different ages, mostly young, bred by the subscriber. The average weight of fleeces, four pounds, nine ounces, washed wool

Address RICHARD KEESE,

Oct. 1—tf. Keeseville, Essex County, N. Y.

Fruit Trees.

THE subscriber offers for sale this fall, among a general assortment of fruit trees, the following quantity; and a large number of the other leading kinds, which will be sold on reasonable terms, especially by the quantity:

APPLES.

5,000 Rhode Island Greening,	2.000 Dominie,
3,000 Newtown Pippin,	2.000 Belle Fleur.

CHERRIES.

2.000 Napoleon Bigarreau,	1.000 Yellow Spanish,
1,000 Black Tartarian,	1.000 Holland Bigarreau,

30.000 Early Golden Apricot, both on the peach and plum.
2,000 Frost Gage plum trees.
2,000 of the same 2½ feet high, $10 per 100.
3.000 Isabella Grape Vines, from 2 to 4 years old.
5,000 strong one year-old vines, for $9 per 100.
500 Large Linden trees.
A large quantity of Fir and Spruce bushes.

Amateurs are invited to call and see the show of fruit on the Frost Gage trees this fall. CHARLES DUBOIS,

Oct. 1—2t. Fishkill Landing, N. Y.

South Down Sheep

FOR SALE. Ten full blooded South Down Rams, from Lambs to four years old. Also 20 Ewes, from yearlings to four years old.

The subscriber has spared no expense and care to raise the flock to a high standard, and he, therefore, offers them for sale with confidence in their merits.

Application may be made, either personally or by letter, addressed, JOHN McD. McINTYRE,

Oct. 1—2t. Albany, N. Y.

Highland Nurseries, Newburgh, N. Y.

Late A. J. Downing & Co.

THE Proprietors beg leave to inform their patrons, and the public in general, that their stock of

Fruit & Ornamental Trees, Shrubs, Roses, &c.,

For autumn planting, is unusually large and thrifty, and embraces all of the best varieties introduced into notice in this country or Europe, of Apple, Pear, Plum, Cherry, Peach, Nectarine, Apricot, Grape Vines, Gooseberry, Currants, Raspberry, Strawberry, &c.

Portugal Quince trees, standards, extra size, each, $1.00
" " quenouille, " " 1.00
Angers. (*true*) extra, " 1.00
Trees of the usual size, 50 cents.

The stock of Ornamental Trees, Shrubs, &c. is very large, and quantities to dealers, or planters on a large scale, will be furnished at greatly reduced rates.

Hedge Plants.

A large lot of Buckthorn and Osage Orange plants.

Also, a large lot of Rhubarb and Asparagus roots.

The entire stock has been propagated under the personal supervision of A. SAUL, whose long connection with this establishment is some guarantee, from the reputation it has gained, *and the present proprietors are determined to merit*, as to the *genuineness* and accuracy of the present stock.

Orders respectfully solicited, and will receive prompt attention, which will be carefully packed and shipped to any part of the Union, or Europe.

Catalogues furnished *gratis* to *post paid* applicants.

Newburgh, Oct. 1—2t. A SAUL & CO.

School of Applied Chemistry,

Yale College, New Haven, Ct.

B. SILLIMAN, Jr., Professor of Chemistry applied to the Arts
J. P. NORTON, Professor of Agricultural Chemistry.

THE Laboratory in this department is open during nine months in the year for instruction in the analysis of soils, minerals, ores, &c.

During the summer and autumn terms, there will be lectures on Mineralogy, Geology, Natural Philosophy, Elementary Chemistry, and other useful branches of Natural History.

The annual course of lectures on Agricultural Chemistry, by Prof. NORTON, will commence soon after the middle of January, and continue till about the first of April, at the rate of four or five lectures in each week.

These lectures are intended to be delivered in a form quite intelligible to those who never turned their attention to chemical studies. The great principles of Improved Agriculture will be illustrated and explained during the progress of this course in such a manner as to be understood by all. Tickets for the course $10.

Students in the laboratory have glass, chemicals, balances, and other apparatus furnished, and pay $20 per month. Analyses of minerals, soils, &c., made on reasonable terms.

For further particulars apply to either of the Professors.

New-Haven, Ct., Sept. 1, 1849.—5t.

Fruit Trees.

THE subscribers offer for sale this fall their usual assortment, viz: Apples, Plums, Pears, Cherries, Peaches, and Ornamental Trees.

The following Pears on the QUINCE.

Louise Bonne de Jersey,
Bartlett,
Virgalieu, (White and Gray,)
Onondaga, or Swan's Orange,
Duchesse d' Angouleme,
New Gray Winter Beurre,
Doyenne d' Ete, or Summer Virgalieu,
Columbia,
Bloodgood,
Vicar of Winkfield,
Beurre Diel,
Dearborn's Seedling,
Leon Le Clerc.

Also, a few hundreds of the European Mountain Ash, of an extra size. WILSON, THORBURN & TELLER,

Albany, Sept. 1.—3t. Nurserymen.

Wheelers's Patent Railroad Horse Powers and Threshing Machines.

THE subscribers having been appointed agents for selling the above celebrated machines for the city and vicinity of New-York, in place of A. B. Allen & Co., (who have heretofore had the sale of the same,) they solicit the attention of those wishing to purchase.

☞ The farmers of Long Island can be supplied with a machine equally well adapted for their use, and which is afforded at the same prices, without any extra charge for premiums or Patent rights. All are warranted to give satisfaction, or are subject to be returned and the full purchase money refunded. A supply constantly on hand at their Warehouses, Nos. 187 Water Street and 195 Front St., New-York. JOHN MAYHER & CO.

Sept 1.—tf.

Books for Rural Libraries.

THE following works are for sale at the office of THE CULTIVATOR, No. 407 Broadway, Albany:

American Agriculture, by R. L. Allen, $1.
—— Fruit Culturist, by J. J. Thomas, $1.
—— Shepherd, by L. A. Morrell, $1
—— Poulterer's Companion, by C. N. Bement, $1.
—— Veterinarian, by S. W. Cole, 50 cents.
—— Herd Book, by L. F. Allen, $3.
—— Farmers' Encyclopedia, $4.
—— Flower Garden Directory, by R. Buist, $1.
Agricultural Chemistry, by Prof. Liebig, $1.
" " by Prof. Johnston, $1.25.
" " by Chaptal, 50 cents.
Cottage Residences, by A. J. Downing, $2.
Domestic Economy, by Miss Beecher, $1.
Domestic Family Receipt Book, by Miss Beecher, 75 cents.
Family Kitchen Gardener, by Robert Buist, 75 cents.
Farmer's Manual of Manures, by F. Falkner, 50 cents.
Fruits and Fruit Trees of America, by A. J. Downing, $1.50.
Farmers' Dictionary, by Prof. Gardener, $1.50
Farmers' Companion, by Judge Buel, 75 cents.
Lanscape Gardening, by A. J. Downing, $3.50.

Employment Wanted.

ANY one who wishes to pay a good price for an active and industrious hand to manage a farm, one who has studied the principles and practice of modern farming, who can construct and repair buildings and implements, who is 27 years old and has a small family, address, *post paid*, CHARLES BETTS,

Burr Oak, St. Joseph Co., Mich.

Good references given and required. Oct. 1.—1t.*

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A LARGE supply of PEAR, PLUM, QUINCE, and BUCKTHORN SEEDLINGS, well grown and thrifty; also
HORSE CHESTNUTS, one and two years old, for sale by
THORP, SMITH & HANCHETT,
Nov 1, 1849—1t. Syracuse Nurseries.

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I PROPOSE to sell at auction, at my farm, on Wednesday the 21st day of November, 1849, about thirty head of high-bred Devon Cattle. Among the number is the bull that took the first premium at the show of the American Institute in 1848, and a premium at the New-York State Fair the present season. Also one pure blood Devon bull, one year old, bred by Lemuel Hurlbut, of Winchester, Ct., two pure blood bull calves, and a number of fine heifers and cows. Also three pair of fine matched steers.

I shall also sell at the same time about 100 Spanish Merino sheep, and two or three fine colts, three years old.

All the above stock will be sold as specified, unless previously disposed of at private sale. J. N. BLAKESLEE,
Nov. 1—1t. Watertown, Ct.

Just Published and for Sale,

BY DERBY, MILLER & CO., AUBURN,

THE AMERICAN FRUIT CULTURIST, BY J. J. THOMAS.—A greatly enlarged and improved edition, containing more than triple the matter of the former editions, having been wholly re-written so as to embrace essentially all the *valuable information* known at the present time relative to FRUITS AND FRUIT CULTURE. It contains 300 accurate ENGRAVINGS OF FRUITS, and includes condensed and full descriptions of all Fruits of merit and celebrity, cultivated or known in this country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

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The work belongs to the author and is not traded. A liberal discount is made to Booksellers. Oct. 1—3t.

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JOHN MAYHER & Co's New Agricultural Warehouse and Seed Store, 197 Water street, N. Y., where they have for sale the largest and most complete assortment of Farming Implements ever offered for sale in this city, all of which they will sell cheaper than the same kind of goods can be purchased at any other house in the city.

Our goods are all warranted to give satisfaction. Farmers wanting to purchase, will please call and examine our stock, before purchasing elsewhere. Among our assortment, may be found the celebrated highest premium Eagle Plows, together with the most approved plows now in use.

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WE have upwards of 1000 Plows of the most approved kinds, suitable for all kinds of soil, both for the south and the north. All warranted.

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WE have a first rate article for this purpose, that will do the work satisfactory to the purchaser. Warranted.

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WE will supply orders for Peruvian, Patagonian and Prepared Guano, Bone Dust, Lime, Ashes, &c., all warranted fresh, and to be the kinds that are ordered, at as low prices as can be had in this city. We have a large supply constantly on hand.

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500 bushels of the celebrated white-flint seed wheat.
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N. B. If any of our goods should not prove to be what we represent them, we will refund the money when they are returned, together with all the expenses that occur in so doing.

JOHN MAYHER & CO.,
Oct 1—tf. 197 Water Street, New York.

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